The New York Medical Times

VOL. XIV. NEW YORK, AUGUST, 1886. No. 5.

ORIGINAL ARTICLES.

HOMŒOPATHY AS VIEWED BY A MEMBER OF THE MASSACHUSETTS MEDICAL SOCIETY.*

A Lecture delivered April 15, 1886, before the Hahnemann Society of the Boston University School of Medicine.

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President of Boylston Medical Society, 1884–5.

PART I.

MR. PRESIDENT AND GENTLEMEN OF THE HAHNEMANN SOCIETY OF THE BOSTON UNIVERSITY: One year ago, Dr. Conrad Wesselhoeft kindly consented to give his views upon homœopathy to the members of the Boylston Medical Society of the Harvard Medical School,† and to-night I appear before you at your polite request, to state my views upon the much-vexed question of the difference between the homœopathic form of practice as now known, and that of the "old" or "regular school."

In accepting your invitation, I did so with great hesitation, solely for the reason that I felt my knowledge of the subject in question was not sufficient to warrant me in giving my views in the form of a lecture.

As I should have been unwilling to seem ungracious to your Society by a refusal to speak before you, and having the earnest desire to do my part, however small, towards creating harmony in the rank and file of the medical profession, after years of unfortunate and bitter feeling, I decided to accept the invitation and to answer the questions which you have given me to the best of my ability.

I have thought it best to begin by answering and discussing your questions separately, and in the order in which they were given, leaving my general remarks upon the subject to the end of my paper.

> Question I. "What are the conditions under which it would be possible to construct a positive science of medicine?"

Gentlemen, until we, as erring human beings, become possessed of supernatural powers, I maintain that the construction of a positive science of medicine is a thing devoutly to be wished for, but an absolute impossibility. When we have a perfect knowledge of the structure of the human body, of the exact function of every nerve, muscle, and other organ, and of their relations to disease; when we know the exact nature of every drug, of its effect upon the human frame, both in health and disease, and can surely trace every effect to a certain cause; finally, when we fully understand the part which personal idiosyncrasy plays in our treatment of disease, then, and then only, can we begin to hope to construct a positive science of medicine.

You may say to this: "Why, if we have such a discouraging outlook, is it worth while to strive at all to improve upon our present knowledge of medicine?' and I reply: "Because in every path of life, we can strive, at least, for our ideal' however unattainable it may seem to our human minds.'; That it would be a wretched life indeed, if, in our endeavors to look for truth, we had no hope that we were doing our part, however slight, in the moral and intellectual progress of the world. Certainly, our only hope for approaching this ideal in medicine is to cultivate our powers of observation to the utmost; to watch our cases closely; to compare different forms of the same disease; to note and compare the results of our methods of treatment with those of others, always keeping in mind that while we should give the powers of the imagination their due place, one well-established *fact* is worth a thousand *theories* in our study of disease.

> Question II. "What would your school do in a case where the symptoms were so varied that it was impossible to make a diagnosis?"

In answering a question, involving, as this does, such an infinite variety of possible conditions, it is of course, impossible to lay down an absolute law as to the method of treatment in cases of doubtful diagnosis, but I think it safe to say that at the outset, we should inquire into the condition of the various functions of the body, and, if not acting as they should, our treatment would first be directed towards restoring them to their normal condition, if possible. Having accomplished this, and yet finding no cessation, nor even amelioration, of the morbid symptoms, our only resource would be, to *wait*, while watching the case carefully for the advent of symptoms which would assist us in our diagnosis. At the same time, we might be, and frequently are, obliged to treat the case symptomatically, by which I do not mean that each and every symptom should be attacked, as it were, by a different remedy, but that certain symptoms which seem to threaten the safety of the patient should be alleviated as far as possible by whatever means seem best to us. To make myself more clear, possibly, let me use an example: A patient may be suffering from a variety of puzzling symptoms, and one of our first questions would probably be as to the condition of the alimentary canal; possibly we should find that there had been marked constipation, and our efforts would be directed towards clearing the bowels from obstructions, either by means of enemata, or by rapidly-acting, laxative medicines, provided there were no concomitant symptoms to contra-indicate any disturbance of the intestinal tract. Should we, moreover, after the removal of this possible cause of unusual symptoms, find, for example, excruciating headache persisting, our only course would be to alleviate, if possible, the suffering from this one symptom, and then wait for further developments. By my use of the pronoun "we," I have endeavored to express what would seem to me to be the opinion of the physicians with whom I am most thrown in contact, and yet from the very methods of teaching in our schools, there would be many, doubtless, who would differ from me, and to this point I shall refer later.

* Boston Medical and Surgical Journal, June 24 and 30, 1886.

† A Lecture on Homœopathy before the members of the Boylston Medical Society of Harvard Medical School, by C. Wesselhoeft, M.D. Boston: Otis Clapp & Son. 1885.

Question III. "What are the arguments in favor of Polypharmacy by your school ?"

The wording of this question leads me to think that you are laboring under the mistake that the methods of prescription-writing of fifty years ago and of the present day are one and the same thing, and I hasten to assure you that this is by no means the case. Not that prescriptions are not very frequently written containing several ingredients still, but I think there is a growing tendency towards the use of single remedies, at the same time that the amount of dosing, although varying greatly with different physicians, has vastly decreased in less than half a century. As to the reason of these changes, I shall speak later. Certain it is, that the younger physicians of to-day hear little or nothing of the "adjuvans," the "corrigens," etc., various terms used so much in prescription-writing of former times, and look with amusement, not unmixed with horror, at the compounds which were poured down the poor sufferers' throats, while they wonder, indeed, that the mortality list was not even greater than recorded !

If arguments there be in favor of polypharmacy, they can easily be reduced to this, I think : That such combinations of drugs are recommended for use as have been shown by the experience of thousands of careful observers to have certain effects upon certain abnormal conditions of the human body.

Let us again take an example : In cases of chronic constipation, where there seems to be a lack of intestinal secretion and an atonic condition of the bowel, the combination of aloes, nux vomica, and sulphate of iron in pill form, has proved of infinite service where aloes alone seems to lose its power quickly, or to cause uncomfortable sensations.

Again, in cases of cardiac disease associated with dropsy, I think that no one who has used in such cases a simple combination of digitalis, colchicum seeds and bicarbonate of soda, a formula * now in use for several generations, can fail to be impressed with the beneficial effect of such a prescription Neither can any one who has had much experience in dispensary or private practice doubt the efficacy, I will not say in all, but in the majority of cases of anæmia associated with mitral disease, of the combination of iron and digitalis either in pill or liquid form.

Barth low constantly speaks of the "synergistic" action of some drug upon another ; that is to say, the power which one drug has of increasing the action of another ; for in stance, alcohol increases the hypnotic effect of morphine ; ipecac increases the sudorific action of opium, and the combination of bromide of sodium or potassium with chloral will often accomplish what is wished for, in smaller doses, too, than when either drug is used alone.

Quantities of instances like these could be given, but they will suffice to illustrate my meaning. I repeat, then, the arguments in favor of Polypharmacy when practised, are, that experience justifies us in concluding that a combination of drugs is often, not always by any means, more efficacious in combating disease than the use of one drug alone.

Question IV. "In accordance with what principles does the 'old school' physician prescribe, and on what basis does he maintain that these principles are correct ?"

* ℞ Pulv. Digitalis ..... gr. x.
Pulv. Colch. Sem... ..... gr. xx.
Sodæ Bicarbonat.... .. .. gr. xxx.
Ft. pil. no. xx.
S. One pill three times daily, unless there be very urgent cardiac dyspnœa ; then it may be given, *temporarily*, every three or four hours.

Gentlemen, I believe that I am correct in saying that no physician of the "regular" or "old school" is taught to practise by any set maxim, rule or principle, unless indeed it be said that to use the experience of others and ourselves, combined with as much common sense as it is our good fortune to possess *is* a principle.

Certain it is, that we believe the science of medicine cannot be reduced to mathematical exactness, and just so long as this is the case, we believe it impossible to lay down an absolute law of medicine and say "This rule is right ; no other can be right, and by this rule must we practise." Possibly in the countless ages of the future, as the human mind comes nearer and nearer to the state of the all-seeing and the all-knowing, what is now dark and unfathomable to our finite minds may be clear as day, and medical science may be upon a firmer basis than it now possibly can be. It is perhaps a discouraging and rather sad thought that in medical practice there is so much groping in the dark and so much scepticism as to the efficacy of our methods of treatment in many cases. Happy those who are always convinced of the useful power of their drugs and indulge themselves in the *post hoc propter hoc* argument, in the face of the more sceptical who say, "Could not this favorable result have occurred had Nature been left to herself ?"

From what I have just said you will know that the "regular" physician feels that he must rely largely upon the judgment and experience of those who, by their eminence in the profession to which they have devoted their lives and energies, have become immortalized ; at the same time, by using his own powers of observation, endeavoring to avoid the danger of blindly following the beaten track. In so doing, he confines himself to no narrow limits by absolute belief in one or more maxims, be it the so-called principle of *contraria contrariis*, or *similia similibus*, or the power of infinitesimal doses of certain drugs ; in short, he prescribes his medicines as far as possible in accordance with *experience*, experience based upon practical observations, or frequently upon the results of laboratory research in which theory has been substantiated by fact.

The term "empiricism," signifying a tendency to depend on personal experience alone in practice, was a term constantly hurled, and doubtless oftentimes with justice, at the opponents of Hahnemann. This charge is even now a favorite one among homœopaths in their criticisms of the "old school," but I have yet to be convinced that the former are free from this fault which they complain of in others, when I read certain portions of homœopathic literature.

Gentlemen, we are all of necessity "empirics" to a greater or less degree, and that any one of us should be accused of depending too much upon personal experience alone, is a fault, I believe, more of the individual than of the "school of medicine" to which he may profess to belong.

Let it not be supposed that the "old school" physician (using the term merely as a distinguishing mark from those who profess to adhere to a certain rule or set of rules in their practice) feels himself compelled to accept blindly the theories and suggestions of those whose opinions he respects, and act upon them regardless of his own results. The intelligent practitioner condemns the unimaginative, short-sighted methods of those who allow the existence of nothing beyond the reach of their special senses and who persistently make use of certain prescribed regulations, regardless of the personal idiosyncrasy of the patient and of the other innumerable reasons for making each case a special study. He considers himself justified, moreover, when prescribing, in

experimenting, within reasonable limits, in whatever way shall seem best to him; above all, he considers that his methods of practice are directed towards assisting Nature in her efforts to resist disease.

Question V. "To what doctrine of Homœopathy does the 'regular school' most object? Why are the doctrines of Homœopathy more strenuously opposed by the 'old school' than the widely varying theories constantly presented by physicians of that school?"

In answering the first part of your question, one is embarrassed by the fact that he finds there is dissension in the ranks of homœopathists as to what maxims should be rigidly adhered to in their practice. Your critic says that he cannot possibly believe that an infinitesimal part of a grain of table salt can have the slightest effect, salutary or deleterious, upon any one, and he is confronted with the statement that such ideas have long since been exploded. Again, he finds that while one homœopathist believes that there is no curative power in the fraction of a grain of some drug, beyond the tenth dilution, yet there are others who seem to have implicit faith in the salutary effect of a grain of the same substance carried to the thirtieth dilution and even higher, to say nothing of the great originator of Homœopathy, Hahnemann himself, who stated that no dose could be made too small, on the ground that, by means of proper distribution or dilution, the power or "virtue" of the drug used, increases in an inverse ratio to the smallness of the dose.

These and other differences of opinion among members of a sect in medicine who profess unbounded faith in certain set formulas for practice, must necessarily, I think you will in justice admit, bring doubt into the minds of those who look on, not only as to the infallibility of the homœopathic doctrines, which perhaps the more reasonable of your school do not claim, but also as to the great difference which the homœopaths still insist exists between their methods and those of a vast number of practitioners who acknowledge implicit allegiance to no sect or school of medicine.

For the sake of argument, however, let us suppose that every homœopathist adheres strictly to the teachings of his school namely, the giving of simple remedies, the use of small doses, the so-called law "similia similibus curantur," and the "proving" of drugs, and I can then perhaps show you to which one of these rules the "regular school" most strenuously objects.

As to the first maxim, the giving of simple remedies, I have already said that the tendency to use single drugs, although by no means universal, is much more marked than in the practice of a generation ago, and certainly the prejudice among physicians of the present day against giving long prescriptions, is increasing; therefore this may be said to be the least objectionable of the homœopathic doctrines

The use of small doses. Although I believe you are taught in this school that any dilution beyond the tenth is useless, you will acknowledge that there are those holding a high position among homœopathists who profess implicit faith in the curative power of drugs carried to a much higher degree of dilution than what you consider the limit, and I therefore am justified in classing them together.

Certain it is, that however sceptical many of us may be as to the curative power of any drug whether given in large or small doses, the effect of which has not been unquestionably proved, our scepticism is not lessened when we hear of the beneficial results obtained from the use of the quintillionth, the billionth, the millionth, or even the one one-hundred thousandth of a grain of some substance, and we consider that homœopathy has not yet shown by its results, facts which warrant its claim to more favorable results than what Nature could have accomplished when assisted merely by proper hygienic and dietetic care.

We believe that the homœopath, by what we deem extravagant claims on this point, is constantly falling into the error, to which to be sure we are all more or less liable, of arguing that because improvement *follows* the administration of a drug, it is therefore *in consequence of* that drug—an assumption which seems to us most unwarrantable in the vast majority of cases which experience has taught us would recover without any treatment at all.

To the implicit faith in the doctrine "similia similibus curantur" as a universal law (implying as it does, a treatment founded upon observance of symptoms only, regardless of their cause), I think I can safely say the regular physician objects more strongly than to any other of the homœopathic maxims.

That some drugs which cause certain symptoms will oftentimes check or cure similar symptoms arising from another cause is a fact not discovered by Hahnemann, but acknowledged many years before his day. Ipecac, in certain doses, has for ages been known as a valuable emetic, and at the same time its power of checking some forms of emesis is equally well recognized. The same may be said of rhubarb, which in large doses acts as a purgative, but is often used in small doses in intestinal catarrh with marked benefit. Other drugs could be mentioned, but these will suffice to show that "old school" physicians all recognize this apparently peculiar characteristic of some substances, but at the same time feel that the homœopathists have gone too far and are not justified by experience as yet, in asserting they have discovered some mysterious law of Nature which governs the whole domain of medicine, because certain drugs possess qualities which are perhaps not explained to our entire satisfaction. They believe, moreover, that the claim of the homœopaths that *symptoms* must be treated without regard to the *cause* of the disease (a method which seems to be fostered by implicit faith in the *similia similibus* doctrine and by the "provings" of drugs) is, if strictly adhered to, a dangerous source of error, even were it possible for every physician to practice in exact accordance with the classified "provings" of your text-books. When he considers the important part which personal idiosyncrasy plays, to say nothing of the innumerable outside influences which may cause a difference in any two "groups of symptoms," the "old school" physician feels that the man who places implicit reliance upon this method of treatment is walking upon most uncertain ground, and is in danger of being carried farther astray than he who at the outset searches for the *source* of the disease, while closely watching, and relieving if need be, special symptoms.

In the second part of Question V, namely,—"Why are the doctrines of Homœopathy more strenuously opposed by the "old school" than the widely varying theories constantly presented by physicians of that school?" you strike the key note of the whole controversy, and in my answer I shall endeavor, instead of discussing details as to the difference between any two "schools of medicine" to give the chief reason for the opposition shown by the "old school" to the homœopaths since Hahnemann first claimed that he had found the new and only method of the art of healing.

Gentlemen, the "regular" physician takes this ground in his argument, and I believe it to be the broadest, the safest, and the most honest of all. He claims that medica

science is not in a condition to warrant any man in professing to adhere to any school of medicine, or to any set formulas for practice; in short, to justify him in classing himself in any other than the great body of physicians who devote their lives to the advancement of medical science, who practise as reason, judgment, and experience shall dictate, with minds ever ready to seize upon whatever seems to denote progress in their profession, while contenting themselves with the unpretending name of "physician," a term which gives the educated medical practitioner the liberty to practise as seems best to him, and relieves him from the imputation of sailing under false colors, and of not practising what he preaches—an ideal picture, it may be said, and one, alas! which, owing to the faults common to us all as human beings, is rarely met with, but it, at least, expresses the standard of the "regular' physician, however far short he may fall of what he aspires to be.

I hear you say, "But you call yourself an allopathist," and I reply, "By no means." The term is one given by Hahnemann to those of the "old school" who opposed his ideas, and in thus making two separate sets or schools of medicine. I consider that both Hahnemann and his adherents have done much harm by creating false ideas in the minds of the laity, who, in their ignorance of medical science, have been taught to consider the name of "allopath" as synonymous with heroic treatment, and that of "homœopath" as always implying the use of small doses, and methods of treatment utterly at variance with that of "regular" physicians; statements not in keeping with facts, as can be proved day after day in the practice of any physician of even moderate experience.

Unfortunately for our cause, there are those in the "regular" profession, who, although strongly opposed to the adoption of any name other than that of "physician," in their wish not to be entitled "homœopathists," have carelessly allowed themselves to be called "allopaths," and thus have done their part in creating confusion in the minds of the laity, among whom, unfortunately, the war is waged as furiously as in the ranks of the medical profession itself.

I trust that I have now made it clear to you, gentlemen, that the "regular school" object not so much to the "doctrines of homœopathy," as to the fact that homœopathists, as a class, profess adherence to certain methods of practice, and you will excuse me if I say it, *do not practise always in accordance with those methods by any means*, the laity being, at the same time, misled with the idea that they are being treated homœopathically. Gentlemen, can you, in viewing the case impartially, think it strange or unjust that the "regular" physician feels indignant, when, upon being told by some one that he has been treated homœopathically, he finds, upon strict inquiry, that substances have been given in doses quite in accordance with ordinary "regular" practice?" Can you blame him, when he hears that the "leading homœopathist" of a large city in a neighboring State is giving cod-liver oil and quinine, three times a day, to the child of a lady who "has implicit faith in homœopathy"—can you blame him, I say, when he accuses such a man of sailing under false colors; or again, how can he be expected to believe that there is such a vast difference between the homœopathic and "regular" methods, when he hears that the leading homœopathist of a large town in this State, treats a case of chronic pleuritic effusion with arsenicum, in doses equal to one drop of Fowler's solution, with glycerine jackets applied to the affected side, and with stimulants, the previous treatment under a "regular" physician having been three drops of Fowler's solution, three times a day, and iodine applied to the side; or can he think that the homœopathic physician is adhering strictly to his principles, when, later in the same case, he alternates different medicines in the same day, rarely adhering to the same drugs for two days in succession, at the same time, making the patient take draughts of porter at meal time, sufficient to make her leave the table with a dizzy head?

Can you, I ask, wonder that we feel such practice is not fair? I could weary you with accounts of similar cases, but I desist. Perhaps, too, you may think me unjust in citing individual cases, but, gentlemen, how else are we to judge, except by taking individual cases in the practice of men apparently held in high estimation by their own colleagues, and comparing them with our own methods, to see wherein the difference consists?

Your esteemed Professor, in his address to the Boylston Society last year, makes use of this expression: "To say that an homœopath should not use an allopathic means of treatment, or that an allopath should, on no account, use a homœopathic remedy, is as absurd as to say that a blacksmith must, on no account, use a watchmaker's file," etc. I beg he will not consider me discourteous if I say that I deem such a sentence most misleading to those who do not understand the real cause of the controversy between the homœopaths and the "regulars." From the very wording of the sentence, he makes it appear that we are not allowed to use drugs in doses otherwise than as we have been taught from time immemorial, which is not at all the case.

We are bound to nothing, and are at liberty to use any drug, in whatsoever dose we please, when experience has proved to us its beneficial action, the only provision being (I repeat it, to impress it upon you), that we take no name other than that of "physician." Thus, if convinced of its usefulness, we may use the one one-hundred-thousandth of a grain, nay, the one-millionth of a grain of any drug, if we wish, and yet no one can rightly accuse us of sailing under false colors if we do not class ourselves with one sect of special name. Can you, looking at the matter impartially, deny that this is the broader and safer ground to stand upon?

As proof of what I have said, look at the practice of any two "regular" physicians. Their theories and their methods of treatment may differ widely. Where one may believe that the less medicine given the patient, the better, another may have that implicit faith in drugs which makes him pour them down the patient's throat *ad nauseam*, and yet neither of these men is accused by others of their profession of practising otherwise than legitimately.

In thus discussing your question, gentlemen, I trust I may have expressed clearly to you what I consider the chief point of controversy between the two parties.

Photographing the Uterine Cavity.—According to the *Lancet* for May 15, 1886, a Swiss physician describes a plan of introducing wadding tampons and laminaria tents into the uterus, by which he has succeeded in dilating the organ to such an extent as to be able, by means of reflectors, to get a complete view of the whole cavity, in cases of carcinoma, fibrous polypi, fibromata, and endometritis. Not content with occular inspection, he has also contrived to obtain photographs of the cavity.

XUM

THE RELATION OF PREVENTIVE MEDICINE TO MODERN SURGERY.*

By H. I. Ostrom, M.D.
Visiting Surgeon to Ward's Island Hospital.

WITH increased knowledge of the art of living, there must be a corresponding conserving of the forces that go to make up our relation to our environment; and this conserving, so far as it is brought about by our conformity to natural laws, is in proportion to our understanding of cause and effect, and the degree to which we recognize that one must precede the other. The future, therefore, will enable us to foretell many of the phenomena that now seem without antecedent causes, and will place us in a position to avert some natural consequences, by substituting equally natural, but from our standpoint and necessities, more desirable consequences.

Let us consider the bearing this has upon the medicine of the future.

Pressed to its logical conclusion, we find, if our premises are true, that future medicine will be largely confined to preventing disease, and that its scientific recognition will be measured by the degree to which the treatment of disease is made unnecessary. This, it will be seen, is equivalent to saying, that we fail to accomplish the highest of which our art is capable, when we allow the organism to become so acted upon as to render it necessary to restore health by means of our drugs. And though such a standard as we have raised is almost below the horizon of our prevision, we may well inquire if it is not practically, as well as logically, one that must be attained, one that belongs to evolving society.

That the tendency of medicine is towards the establishment of a system of preventive therapeutics, requires no other proof than that derived from a comparison between the present methods and those formerly practiced. Diseases that half a century ago we were obliged to treat in their most severe type, and that were known to us only as fully developed maladies, are now greatly modified, or rendered less frequent in recurrence. Though such results may, with truth, be said to belong in a large measure to the increase in, and more general dissemination of, hygienic knowledge, and the consequent better conditions of living among the masses, this is not the sole factor in bringing about the changes in disease, of which we are speaking. In the past it may have been the most important agent, but in the future the genesis and development of disease will be controlled not only through a knowledge of their laws, but through our ability to use drugs to antagonize the incipient stages of physical derangement. In view of the history of medicine and disease, may we not assume that some of the maladies that now baffle our skill, not only when we would ascertain their cause, but when we would treat them successfully, will become extinguished, by substituting in the organism physical conditions that are hostile to them? Is it not possible that some malignant fevers may by such means become rarer and rarer, and finally disappear, the channels of nutrition being occupied by conditions that resist morbific agents? If we know all concerning a disease—and we should be satisfied with nothing less—our knowledge would include its morphology, and having this key to the situation, and being able to change environment, which is the pabulum upon which disease lives, there seems no rational reason for doubting that many, if not all, of the diseases that now arise, and soon pass beyond our control, forcing us to let them "run their course," can be prevented, and the misery and poverty that follow their outbreak, averted.

Our principal concern now, however, is with the relation of preventive medicine to surgery, especially modern surgery.

And here let us pause a moment to learn exactly what it is intended to embody in the term modern surgery.

I feel that I run very little risk of encountering a dissenting opinion when I make the broad statement that modern surgery is characterized, and will be known in history, not by novel operations, nor ingeniously constructed instruments; nor yet by our successes or failures, but rather by our recognition of the relation that exists between biology and the pathology of wounds, and the degree to which we make a practical application of this relation to the treatment of wounds.

I do not wish to be understood as asserting that all our successful operators are avowedly believers in what is known as antiseptic surgery. Some of them are, at least in speech, opposed to its principles, but it is to be observed that their practice is in the direction of excluding all external sources of disease, prefering to accomplish this by means of the most scrupulous cleanliness, rather than by the use of agents that are antagonistic to septic life.

Without attention to the laws that pertain to the genesis, development and growth of septic organisms—whether such an observance is called antiseptic surgery or not, is unessential to our

*Read before the Homœopathic Medical Society of the County of New York, June 10, 1886.

position—it would be impossible to obtain the results that now belong to operative surgery. The records of abdominal surgery would not for one moment justify the operations now performed. For while traumatic shock is one of the most important factors in the statistics of operative surgery, a factor of equal consequence, and one that influences most powerfully our success or failure, is found in inflammation and its attendant phenomena,—pyæmia and septicæmia. These sequelæ of an operation controlled, and operative surgery will be limited only by the requirements of vegetative life, for there is apparently no reason why an organ, or part of an organ that is not essential to life, should not be removed or excised, if all danger of inflammation can be excluded, without jeopardizing the life of the individual operated upon.

Of course it will be understood that only such cases are here referred to, as are favorable for operative interference, and present no constitutional or acquired conditions that would antagonize the recuperative power of nature. Where such influences exist, they not only alone resist our most careful efforts to establish healthy processes, but furnish the necessary pabulum for the growth and multiplication of those low forms of life, that having gained access to the organism, destroy its harmonious working by interfering with normal cell nourishment. It is the place of preventive medicine, so far as it relates to surgery, not only to destroy these low forms of life—septic organisms—but to anticipate the physical conditions that make their destruction possible; that is, to prevent their entrance into the system

This is antiseptic surgery, and I believe the keystone upon which rests the arch that spans the reparative process of trauma, and makes possible the truly wonderful operations, and in the light of surgical statistics, the amazing results that have now become an every-day occurrence.

STUDIES OF THE PHYSIOLOGY AND IMPERFECTIONS OF DIGESTION.

BY GEO. H. TAYLOR, M.D., NEW YORK.

FOURTH ARTICLE.

THE SECRETIONS.

THE imperfections of digestion can be properly studied only by investigating the sources whence these proceed; and the *quality* of the digestive secretions have far more influence on the nature of the process, and react more powerfully on the general health than any other circumstance. This is because the faulty process allows faulty products, or imperfect and unsuitable peptones to be imbibed into the vital organism, which not only derange and restrict the functional processes of the general system, but react disastrously on digestion. The *quality* of the digestive secretions involve principally, additional to those considered in connection with quantity, and requires separate attention.

The sufferer's ideas and judgments regarding digestion, and the conditions, obstructive or promotive of the process, are inadequate and misleading, so long as confined to the narrow realm of his consciousness. It is with difficulty that the patient can extend his observations beyond the point indicated by pain, and the points and the facts of which he is made supremely conscious by subjective phenomena. For him, difficulties of digestion are matters of feeling rather than of proportions, physiological sequences and of chemical alternatives. Yet these latter are the facts with which he has to contend; else he must surrender to the baldest empiricism and its far-reaching consequences as affecting his future.

This restricted knowledge of principles is greatly promoted by the care with which the local sense of pain may be observed, and the criminal readiness with which, in this age, all means for playing upon the senses are resorted to. These empirical remedies are ranged under all categories, of medicine, of dietetics, and of hygiene. The uninstructed and unobserving sufferer very naturally regards palliative in the same light as remedial means; in his estimation the two are undistinguishable: and he as cheerfully allows himself to be deceived by the one as cured by the other. Toying with the senses teaches nothing, teaches next to nothing respecting that outer realm of physiological and physical facts on which his physical existence depends.

Even the medical adviser not unfrequently feels compelled to regard the patient's immediate sensations and pains as of more importance than the sources of them, and falls incontinently into the habit of experimenting with the sensations, especially the local manifestations of discomfort, meanwhile losing sight of the radical purpose of remedies.

A moment's reflection ought to show that the *quality* of the secretions and transudations which mingle together in the digestive cavity necessarily represents the quality of the common source whence these are derived. The secretions, whatever special character may be conferred on them by the glands whence they issue, are, besides, the medium for conveying into the digestive cav-

ity whatever special ingredients may at the time chance to pervade the organism, whatever the quality and however derived.

The consequence results from the lack of power of the capillaries to exclude any exceptionable ingredients they may receive from the general circulation, and the lack of power of the secreting surfaces to exclude ingredients of transudation, and of the glands in which digestive agents are formed, to exclude ingredients unadapted to digestive uses.

The consequence further results from the duplicate function of the walls of the digestive cavity, which, together with the power and function of *secretion* conjoins most indisputably and unequivocally the additional power and function of *excretion*.

The *excreting* function of the digestive organs is a patent fact, confirmed by ordinary experience, and is not a subject for dispute. This function has through all time been made available n therapeutics, empirical and scientific alike While it is notorious that the gaseous and vaporous ingredients of the body escape at the respiratory and outer surfaces, and the soluble salines by the kidneys as fast as formed, it is equally so that insoluble matters pass to the exterior by the alimentary canal, whether or not such ingredients have previously served vital uses in the organism.

It is also the way by which nutrient matter, digested and absorbed into the system in excess of functional use, must be excluded. This class of ingredients is as certainly excretory in character as the class which has suffered disseverance or exhaustion of its associated energy by use. This class of ingredients is, under circumstances to be pointed out, necessarily returned to the digestive cavity, and becoming mingled with the digesting mass, must modify and destruct the digestive act, and render it pathological.

The source of morbid qualities of the digestive scretions may now be clearly understood.

The quality of the secretions transuding into the digestive cavity expresses the ratio between the rates of expenditure or waste caused by the aggregate functions of the organism, and those of supply of nutritive digested material. This ratio is subject to perpetual variations, rendered entirely physiological and innocuous through certain physiological provisions therefor, until a certain degree of excess of this one over the other is reached—a point which differs greatly in individuals and in constitutions. Beyond this degree the digestive secretions, and through them the whole organism, suffers; primarily, in its physical sphere, in which, only, remedies are applicable; afterwards, in the sphere of the senses and consciousness, in which remedies are as liable to be reprehensible as otherwise.

The physiological principle above shown, that unfunctioned ingredients of the vital organism, of whatever special character, naturally find their way to the digestive cavity, is shown by the *necessity* for such means for exclusion, to preserve from injury the interior and more vital tissues, the organs to which is assigned the power of evolving or dissociating vital energy, the nerves and the muscles; and also by the fact that the physical state (which is that of solid) of unreduced waste, prevents it from being excluded by any other channel.

The same necessity is also indicated by the fact that solid ingredients often embody nutritive possibilities. Returned to the digestive cavity, they are subject to further elaboration by the digestive process, and are exposed to reabsorption and return to the blood and general system, whenever functional emergencies demand further supplies.

The function of the liver is correlative, and affords confirmation of the above statement.

The vital organism suffers a frequently recurring need of restriction in the introduction of aliment. These periods coincide with those of increased transudation into the digestive cavity, from the general system. Attending these changes of action, there is both diminished inclination to take food, and diminished power to digest food. These symptoms show that the transudation into the digestive cavity consist essentially of unelaborated nutritive material, or nutritive excess, transiently returned to the cavity. Digestion is necessarily diminished, and the cause is the peculiar quality of the secretions.

The organism on all occasions manifests an unequivocal tendency te excrete by way of the digestive canal, whatever would, if retained, prove injurious. The physical qualities of this class of ingredients, whether introduced by accident, or design, or with aliment, or whether arising spontaneously from nutritive material delayed or arrested in its nutritive progress, prevents exclusion through the lungs and skin. The remaining channels, the urinary and the alimentary passages, are the only possible alternatives. The urinary passage can provide for only the soluble forms; the insoluble are necessarily consigned to the alimentary passage.

The disposition by the organism of certain poisons, fully illustrates the above statement. Arsenical vapors introduced into the system unconsciously, by inhalation, afford evidence of their

presence in the digestive organs, the stomach and intestinal canal, and particularly by causing inflammation of the secreting glands of these parts. Mercurials, introduced in a similar way or by inunction through the skin, are certain to produce their characteristic specific effects in the digestive system from the mouth downward.

In case of fatal poisoning by these or other substances of similar nature, the chemist detects the poison in the liver; the organ particularly charged with separating ingredients from the blood which must prove injurious if remaining therein. This organ casts its secretions into the digestive cavity for exit. The consequence of these accessions of noxious materials from all sources, the power of the digestive secretions, are liable not only to sad deterioration and diminution, but even displacement by materials excretory in destination, so that the power of digesting food may be temporarily destroyed. The source of the fault is plainly referable far back of the peptic-forming and the secreting apparatus.

Acute diseases are accompanied by diminished chemical power in the organism at large to endow the various forms of energy, and consequently to reduce the waste of the organism to the physical form necessary to ensure elimination. For, as has been shown, ordinary elimination of waste or spent material is always associated with manifestations of normal energy, of nerve, muscle and heart. In this case, therefore, as in the others cited, eliminatory material naturally tends to the digestive cavity. Excretory substance is added to and displaces digestive secretions. These secretions become morbid and incapable of function. The tongue becomes heavily furred, the mouth and whole digestive cavity dry; there is evidence in the senses, skin and urine of restricted reduction, by the diminished water produced; the putrid taste, the nausea, diarrhœa and constipation are confirmatory evidences of return of unfunctioned nutritive material to the digestive cavity and the consequent temporary annihilation of digestive power. It is at once seen that the fundamental cause is not in the digestive organs as such, but in the diminished receptivity of functioning parts for nutritive support. The seat of the trouble is plainly not in the digestive cavity and glands, but in the uses the organism is making of nutritive digested materials.

Attention is now called to the insufficiency and inexpediency of some of the ordinary modes of remedying defective quality of the digestive secretions.

Dietetics.—One-half the contents of the digestive cavity consists of ingredients poured into this cavity from the organism at large. It is plain, therefore, that the most scrupulous perfection of the *qualities* of the food taken cannot control the quality of the coincident secretions or the rate and quality of the coincident digestive act. Easily digested and ready digested food, instead of aiding the digestion, in fact increases the amount of unemployed nutritive material returnable to the digestive cavity, and therefore tends to increase the difficulty.

Medication of the Digesting Mass.—Ant-acids, acids, etc.—The effects of these are evanescent; and, for reasons above explained, cannot reach the cause or source of the defects. The seductive palliation favors frequent repetition of the dose, which cannot prove otherwise than harmful.

Medication of the Secreting Organs.—The same lack of scope in the nature of the remedy is observable. The cause is not in the secreting organs or liver, but in the sources from which the materials for the functions of these organs are derived. It follows that remedies, to be such truly as well as in name, must have some distinct and intelligible relation to the functioning tissues; to the uses to which nutritive support is applied; and therefore to its resolution into the ultimate innocuous forms, in which it is dismissed from the system; for in this way only are the digestive organs protected against its return to the digestive cavity, as supererogatory matter to be excluded through the channel these organs furnish.

To medicate the secreting glands entirely fails of the intended purpose; for the remedy is thus applied to a subordinate point. The secreting glands have never been credited with oxidizing functions, and this is the one necessary to invoke for the radical purpose of destroying offensive forms of excess and of waste, and insuring their discharge from the vital system. This function co-exists with expenditures of energy, and not with the fluidizing and absorbing of nutrient matters.

Effect of Bitters on Digestion.—Dr. Cheltsoff, chief of Prof. Botkin's clinic, thinks that extracts of the so-called "pure bitters," which are usually prescribed with the view of stimulating the secretion of gastric juice and of aiding digestion, so far from having any beneficial effect of that kind, are absolutely injurious, inasmuch as they retard the digestive functions. From a series of experiments with the various bitter extracts, he arrived at the conclusion that large doses of these agents diminish the secretion of gastric juice, though small doses effect a slight and transitory increase of it, the digestive power of the fluid being, however, in all cases diminished. Bitter extracts have no antifermentative effect, and do not hinder suppuration. Lastly, assimilation of nitrogenous substances is diminished by the use of these extracts.

TORRUBIA SINENSIS.*

By E. B. Ivatts, M.D., Dublin, Ireland.

SOME years ago, in fact about 1877, when reading a periodical, I met with an article on the *Torrubia Sinensis*, and was attracted by its semi-annual and semi-vegetable reputation. Knowing that ergot of rye, and likewise viscum album (mistletoe) possess a special action upon the female generative organism, I had conjectured a theory that most, if not all, parasitic plants might also have a special affinity for the male or female generative system. I was therefore curious to ascertain if this Torrubia Sinensis, being a parasitic fungus, growing upon an insect, had any such action.

Through a friend I got into correspondence with a Mr. Frewin, residing in Swatow, China, and he obtained and sent me the specimens of the Torrubia Sinensis now submitted.

In Mr. Fred. Porter Smith's "Contributions to the Materia Medica of China" (1871) he describes the cordyceps sinensis, which appears to be the same fungus. He says:

"This fungus, the sphæria of some writers, is described by the Chinese as a plant in summer and in winter an insect; it grows upon the head of the caterpillar as a disease of the insect. It is said to be common in Southern Thibet, but the present supply comes from Kia-ting far in Sech 'uen. It is not so rare nor so much thought of as in the days of Dubalde, who praises it immoderately. It belongs to the class of drugs called Lang-tan-ho, or things uncommon but not in any demand. It is sold in bundles weighing 2 mace 16 grains troy) each, on an average. The bundles are three-quarters of an inch in diameter and from three to three and a half inches in length. Each of the many pieces forming the bundles consists of two distinct portions, one of which is large, belonging to the insect of a yellowish brown color, more than an inch long, showing the rings, joints, and more or less of the characteristic structure of the grub; and the upper fungus portion, consisting of a spurred filament of a greenish brown color, flexible, more or less twisted, and internally of a light color. The insect is probably a species of the Hepialus of the moth tribe. The account of this fungus is found in the Pen Ts'an. It is said by Dubalde to be found in the province of Hukwang, answering to Hupah and Human of the present time. It is said to be as good as Ginseng and to be worth four times its weight of silver. It isused in jaundice, phthisis, and cases of injury of any serious nature. Very few persons know much about it at the present time."

Mr. James Britten, F. L. S., gives the following account: "One of the most remarkable of these insect fungi is the Torrubia Sinensis (or Sphæria Sinensis), a species which occupies an important position in the Chinese materia medica. Although duly reported by Du Halde, Thunberg, and other eighteen century travellers, it does not seem to have been scientifically described or named until 1843, when Mr. Berkeley took it in hand, determined it to be a new species of Sphæria, and gave it the name we have cited above. According to Du Halde, it is brought to Canton from Thibet and from the Chinese province of Se-tchuen, which borders on that country. It is imported in small bundles, tied round with silk, each including from twelve to twenty specimens. In China it is regarded of such value that it is said to be used only in the household of the Emperor. Its special value appears to be in cases where by illness or over-exertion the powers of the system have been much reduced. Its properties of renovation are reputed similar to those of the famous Gin-seng. The method in which the fungus is employed is especially curious; a duck which has previously been stuffed with five drams of the sphæria is roasted before a slow fire; during the process the virtue of the fungus is supposed to pass into the flesh of the bird, which is then to be eaten twice a day, during the following eight or ten days. Very old and black specimens are worth four times their weight in silver. The Chinese name for it is 'summer-plant winter worm,' which seems to imply that they regard it as being at one season vegetable and at another animal. Many curious accounts were circulated about this plant when its discovery was first made known in Europe. Father Porenin, a French missionary, sent it to Paris, with an account stating that it was the root of a plant of which he had not seen the leaves or flowers, but that these roots were supposed to be turned into worms."

I made up the first centesimal trituration and took the drug twice a day over several days, and found the effects as follows: During the first four days the action upon the generative system produced a most decided aphrodisiac effect, but after the four days the reverse action set in and the generative system became alarmingly depressed, the organ being reduced to the size of a baby's. About the fifth day it produced a dull headache, followed by violent sneezing, and the next day a running from the nose (coryza) came on, which lasted for several days; the mucous membrane inside the

* Paper read by before the Dublin Philosophical Club, 1886.

nostrils continued dry and inflamed; vesicles came out upon the upper lip, which broke and healed in six days; odd red spots appeared here and there on the body; the teeth and gums were sore for several days; the bowels were constipated, with occasional discharge of single hard pieces, knotted, black, and with a greenish metallic hue, the same hue as observed in the powder of the Torrubia Sinensis under the microscope. The action of the drug on the nasal passages was similar to that of Iodide of Potassium.

I have occasionally given the drug to persons suffering from ordinary running colds and it has appeared to give relief and shorten attack. It is likely to prove useful in liver complaints, constipation and impotence.

CLINIQUE.

A RETROSPECT, AFTER THIRTY-ONE OPERATIONS UPON THE LACERATED CERVIX UTERI*

BY G. CLINTON JEFFERY, M.D., BROOKLYN, N.Y.

OF the many advancements that have marked the more perfect results, attained after the numerous experiments made in the fields of surgery and therapeutics during the past fifteen or twenty years, none more than the revelations and explanations of phenomena dependent upon a laceration of the tissues of the uterine cervix have come into greater prominence and divulged more to the physician who previously had combatted symptoms with but little of the success, that is now made possible after the repairing of the lesion, the result of this traumatism. The many and diverse conditions of inflammation and ulceration of the uterus at the fundus or neck were viewed by the practitioner as simply a condition of disease dependent upon some occult cause, and he was content to simply relieve the passive congestion of the parts as far as possible by means that experience had taught him to be the best, or that were suggested to him by the works upon the subject of gynæcology which he may have consulted. Patients came to one physician soon to leave him and try the skill of another, and in very many instances but to record a persistence of failure and a continuation of suffering, while the inflammatory condition persisted in its aggravating course; and the pathological alterations in the parts continued without favorable change. The unexplained causes, so clear to our understanding to-day, were then passed by, unseen and unrecognized.

The past tense which I have just employed indicates a period previous to the year 1869, when a great advancement was made in the successful treatment of the many inflammatory diseases of the uterus by the discovery of Dr. Thomas Addis Emmet, of New York, that the rupture of the cervix uteri, at the time of parturition, was the hidden cause of a very large majority of the cases of uterine disease. In fact, he claims that there is always a rupture of the overdistended os, but that in many cases union by the first intention obliterates all traces of the lesion, and in some others union takes place by granulation, while in the greater number no union takes place at all. In the former condition the patient generally escapes the painful consequences of the childbirth, unless possibly too much expedition should cause displacement of the uterus, or else sub-involution be the melancholy sequence. In the other two classes are numbered those unhappy beings who are for years the prisoners of suffering and despondency, unless the hand of recent discovery is accepted, and leads them to the goal of recovery.

Pains in the lumbar region; cephalalgia, felt mostly at the vertex and occiput; soreness and a bruised sensation in the left hypochondriac region; insomnia; loss of appetite, with melancholia, together with discharges of thick and tenacious leucorrhœa of a bloody or yellowish tinge from the vagina, while in a few cases a very scant secretion, with an increase of backache and headache, is characteristic. Objectively, the uterus is generally normal as regards its depth, although the hyperplasia that is always present gives the organ a very much enlarged appearance; the tissues are engorged with venous blood, and frequently bleed on the slightest touch at the lacerated surfaces; to the finger, the tissues are sufficiently hard to suggest the presence of scirrhous, and upon several occasions have I broken my needles while attempting to pass them through, so leather-like do they become, and often cystic degeneration of the os, together with carcinoma, become a part of the pathological condition in the later stages.

In my presence, while attending a course at the Woman's Hospital, New York, Dr. James D. Hunter made the unqualified assertion that he believed that over 75 per cent. of the cases of cancer of the uterus were found to exist in those subjects where the cervix had previously been lacerated during delivery.

* Read before the Kings Co. Hom. Med. Society, July 6, 1886.

The sub-division of the lesion as found (according to Dr. Emmet) are as follows: *first*, the unilateral—where the os is torn from the canal outwards upon one side only; *second*, the bilateral—where the rupture extends outwards on both sides from the canal; *third*, the bifid—in which to the bilateral is added a division of the tissue upwards or downwards, giving the appearance of the letter T; and *fourth* and lastly, the stellate, or multiple, in which the os has been shattered in many directions. This division of lesions of the os include those cases in which union has taken place by granulation, or where, as more often happens, no union has taken place at all.

Where union has taken place by granulation, ridges of tough and barely penetrable exudation mark the points of adhesion, with the natural result of preventing a free and continuous circulation of blood to and through the parts, and upon this abnormality hinges the whole pathological condition.

What, we will ask ourselves, are the certain results?

First, congestion, the result of obstruction. *Second*, inflammation of the surrounding tissues, which in a reasonable time is followed by either molecular death in the part or else by a chronicity of the state, with all the direful consequences made possible by such a condition. After the pathological state has been established, most noticeable is the profuse leucorrhœal discharge, which is maintained upon the slightest aggravation, together with a deficiency of the menstrual flow, which, unless arising from a profound anæmia, maintains congestion of other organs, producing therein perversion and interference of normal function; also, large points of ulceration are found upon the broad, everted surfaces of the os, which gradually enervates the patient by constant discharges of muco-pus, besides producing the septic condition, with its influence upon the blood; that is the history of many cases, whenever ulceration is present in any part of the body. Soon the appetite becomes impaired, and the result, owing to the deficient supply and assimilation of nutriment, is broken health; made plainly apparent, owing to the anæmic condition of the blood that rapidly supervenes.

Tonic treatment will here be of no avail, and all of the topical applications that are employed will no more conquer the pathological condition existing at the os than that a sinous from a point of necrosed bone could be made to heal without removing the sequestrum that is maintaining the local irritation and inflammation in the part.

During the past three years I have operated according to a record that has been preserved by me, upon thirty-one cases of lacerated cervix uteri, comprising therein every recognized variety of the lesion. In many of the cases laceration of the perineum has been a complication, and where found, and when possible by the consent of the patient to include its repair in the operation upon the cervix I have done so. In all of the uni- and bi-lateral cases union of the flaps without subsequent interference has been my experience, although in one bifid, and in two of the stellate lacerations subsequent operations were found necessary, one of which I have done with successful result, while the other, owing to epithelioma being present in the part, is probably beyond the successful hope that the operation so often promises.

As regards the recovery of my patients, I do not recall but a very few who have not been vastly improved in health and practically cured within a few months.

Upon the third day of June, assisted by Drs. W. H. Pierson and H. J. Pierson, I operated upon Mrs. A., aged 31 years, suffering with the unilateral form of the lesion, who was certainly one of the most nervous women that I had ever met; apprehensive, despondent, easily excited, and enjoying but an hour or two of restless sleep, night after night. The second night after the operation she declared to me that she had enjoyed the most restful and refreshing sleep for three years, and she has from this date continued to pass from six to eight hours in unbroken rest every night since; her appetite has improved, and her nervous state is already more quiescent than for years. This patient, fearing the ordeal of the operation, was under my treatment constantly for the previous six months, without benefit, or attaining the desired result.

Another case I recall is of a lady who came under my care ten years after her first confinement, Mrs. H., aged 29. Upon examination, I found the cervix torn on both sides back to the point of the unilateral os, and from both the anterior and posterior lips large masses of granulations had sprung, until together they were the size of a large walnut. Upon the slightest touch they bled profusely, and the discharge that poured from the vagina was not only profuse but extremely offensive. After convincing myself that the mass was benign in its character, I removed it with the scissors, pared the edges of the laceration and united them in the usual manner with interrupted silver wire sutures. A perfect union was the result, and the discharge, previously so annoying, entirely ceased. The patient began at once to increase in flesh, with rapidly

improving appetite. Three months since (being at that time seven months after the operation) she reported herself entirely free from backache or headache, weighing more than she had for years, and feels herself perfectly cured.

In looking back over my experience in these cases, and comparing the results obtained with what has been desired by both my patients and myself, I desire to place myself on record as being abundantly satisfied with the total of the results which I have attained. The vast majority of the cases were greatly improved, although in a few (especially where the hysterical temperament has been predominant), it is a question in my mind as to whether all that the patient hoped for and expected has followed the operation. In all forms of treatment our daily observation and experiences teach us the uncertainty of many a favorable prognosis, when favorably made, and it therefore would certainly be arrant exaggeration to claim that in every case of lacerated cervix an operation would prove itself a panacea. I claim that in every case the local pathological condition may be restored to a healthy state; but where deductions must be made on account of tissue changes existing in other organs, highly imaginative fancies, together with a hysterical temperament in our patient; although we may be well pleased, and very reasonably so, with the effects we have obtained, our patients may not fully accord with our own satisfaction in the result. Unfortunately for us, obstinate and unreasonable patients are often found suffering with this ailment as well as with others. Excepting in some such cases which have been very largely in the minority, I have had every reason to be satisfied, especially where, in a number of cases, I had tried every other means known to me previous to the operation for a reasonable length of time without success. Medicines prescribed internally, which in my judgment seemed to be the best indicated; tonic treatment, including preparations of the hypophosphites, with their different combinations, together with iron in many varieties; also quinine and other alkaloids of cinchona; topical applications, comprising our most approved astringents faithfully applied—all ultimating in no more than temporizing with the inflammatory condition and palliating the more distressing symptoms for a very short season. When I compare in my mind the more permanent results obtained after restoring the lesion, and the marked advancement in the renewing of health in those cases where the presumed benefits of the operation have been tested by me, I can only affirm the honest belief that the only possibility of restoration to health in patients suffering with the condition of a lacerated cervix uteri lies in re-establishing a normal circulation of blood in the part, by the means of the operative measure which is so significantly presented to us for our careful consideration and employment.

The Treatment of Irreducible Inguinal Hernia by Elastic Pressure.—Mr. Wm. Elder reports in the *Brit. Med. Jour.*, May 8, 1885, the case of a man, aged 56, who had had a small hernia for more than thirty years. He had never worn a truss, or used any means to prevent the hernia from coming down. Recently, the difficulty in reducing it had greatly increased, and the tumor had become much enlarged, and finally it became irreducible. The swelling consisted chiefly of bowel and omentum, the latter feeling, wherever it was touched, as hard as a stone. The bowel could be reduced, but very little difference could be made in the omentum. Other measures having failed, elastic pressure was applied by means of a padding of salicylic wool and an elastic bandage. On removing the pad the next day, the hernia was found to be much reduced in size. The bandage was now kept on for nearly three weeks, resulting in the entire cure of the hernia, which now is entirely reduced, and is readily retained by a truss. At first the bandage was applied as a single spica, but it was found that the swelling was more apt to make its way out below the bandage by passing towards the middle line. The bandage was then applied more in the form of a double spica. Mr. Elder began the bandage at the right anterior and superior iliac spine, crossed the abdomen, to below the left trochanter major, then round the thigh, and across the perineum to the right groin and right anterior superior iliac spine, where it was pinned to the beginning of the bandage. Then it was wound round the back, above the iliac crests, to keep it from slipping down. He then brought it down over the hernia on the left side across the perineum, and round the right thigh, over the front of the abdomen, to above the left iliac crest, and round the back to the right anterior superior iliac spine where the bandage began. He then went on as before, following the same course, but making the bandage above slightly overlap the one below until he got all the pubic region covered, except a small space in the middle line for the penis. This opening, which always weakens the pressure, must not be too large, otherwise the hernia will tend to escape through it. The bandage had only been once on when the hernia disappeared.

Another point is, that enough wadding must be used in order that the bandage may not pain the patient, and in order that the pressure may be equal all around the hernia. It is not necessary to put the bandage on very tightly, as it becomes gradually tighter the longer it is kept on. The different layers of bandage must be pinned to each other, to prevent them from slipping out of their place.

Iodoform.—There are three classes of phenomena (Dr. F. H. Williams) in iodoform poisoning:

"1. Gastro-intestinal troubles: anorexia, loathing of food, taste of iodoform in the mouth, coated tongue, epigastric pains, vomiting and sometimes diarrhœa.

"2. Cardio-vascular troubles: the pulse is accelerated to 130–140 beats per minute, becomes irregular, and in some cases the pulse-wave is weak; the pulse and heart's action denote threatening syncope.

"3. Nervous troubles: psychical phenomena appear, periods of excitation, agitations, hallucinations tendency to suicide, impulsive mania, furious delirium; in some it is possible to find a period of depression characterized by melancholia, particularly sadness with

a tendency to weeping, somnolence, loss of memory, comatose state. It is not rare to see convulsions and paralysis.

Large doses cause, in animals, albuminuria and hæmaturia, and fatty degeneration of all organs, especially the liver.

A New Method of Estimating the Condition of the Right Side of the Heart.—A physical sign to which attention has lately been called by Dr. W. Pasteur (*Lancet*, May, 1885), is a distension or overfilling of the external jugular veins, apparently from below, with or without pulsation or undulation, which takes place when pressure is exerted in the right hypochondriac or epigastric regions with the flat of the hand, the direction of pressure being backwards and upwards. Before proceeding to make the examination, the patient should be placed in the recumbent posture with the neck slightly extended and the head turned a little to one side, while care is taken that the muscles of the neck are not in a state of tension. The sign is usually best marked on the right side, but may in almost every case be demonstrated on the left side also. It is essential that the movements of respiration should be normally maintained throughout the examination. The pressure should be exercised gradually and steadily, otherwise an attack of coughing is liable to be induced, particularly in cases of bronchitis. The patients rarely complain of pain or even discomfort, but on the occurrence of the least pain the manipulation should be at once discontinued.

The phenomenon just described Dr. Pasteur believes to be invariably present in well-marked tricuspid incompetence, whether functional or due to disease of the valves. Besides these, there are a considerable number of cases which ultimately recover, in which the sign is present with varying intensity at one period or another of the illness. Such are instances of mitral valvular disease, whether regurgitant or stenotic, and of chronic pulmonary emphysema, complicated with acute or severe general bronchitis. The question naturally arises whether the distension in these latter cases (emphysema, etc.) should be regarded as evidence of slight tricuspid incompetence, or simply of great over-distension of the right heart falling short of failure of the tricuspid valve. There can be little doubt that the effect of subcostal pressure, whatever the mechanism of its action, is to put increased difficulties in the way of the proper action of the right side of the heart, so that the pressure sign in cases where the tricuspid valve is considered to be still competent is to be looked upon as a measure of the capacity still possessed by the right heart to combat increased resistance. In cases where the tricuspid valve is incompetent, the effect of the pressure is to aggravate the conditions under which the heart is already unable to do its work, with a proportionate increase in the signs of that disability. This sub-costal pressure-sign possesses undoubted value as a means of diagnosis, and may also afford valuable information as to the progress and ultimate prognosis of many cases in which we are now reduced to mere conjecture for want of some definite, tangible index of the condition and working power of the right side of the heart.

Some Readily Available Tests for the Impurities in Water.—Mr. C. C. Howard publishes in the *Sanitarian*, May, 1886, a ready method of determining the presence of nitrous acid in water. The agents which he has found to act most satisfactorily are sulphuric acid and naphthaline hydrochloride. If water containing not more than 1000 parts per 100,000 of nitrous acid be treated with a drop of hydrochloric acid and a drop each of solutions of these reagents, after standing ten or fifteen minutes only the faintest tint of pink will be perceived. If a marked pink be produced, the quantity of nitrites is sufficient to indicate serious contaminated. In sewage, and in water from a few wells, the color was a deep carmine, and the quantity present 20 to 66 times the limit stated.

Another constituent of importance is chlorine combined with sodium, as sodium chloride or common salt. Since this is found in the fluids of the body, and urine contains 500 parts per 100,000 of chlorine, mixtures of animal excreta with water will increase the quantity of chlorine found therein.

The reagents for chlorides are nitric acid and silver nitrate, which produce in water containing chlorides a white precipitate of silver chloride. In water containing 1 or 2 parts of chlorine per 100,000, the precipitate is so slight that it appears as an opalescence, while with 10 or 20 parts a precipitate is produced. The appearance of a marked precipitate indicates the presence of a sufficient quantity of chlorides to justify the rejection of the water.

The Treatment of the Round Gastric Ulcer with Albuminate of Iron.—How widely soever opinions may differ regarding the exact causation of gastric ulceration, all pathologists agree as to the relation existing between the affection and anæmia or chlorosis. The reason that the gastric ulcer, in spite of its unquestioned relation to anæmia, is not treated by preparations of iron, refers, of course, to the digestive disturbance which this class of ulcer is pretty certain to create. Peters, Neuss, and other therapeutists, have even published especial papers to prove that iron is positively contraindicated in gastric ulcer.

It is therefore rather surprising to find in an article appearing in the *Berl. Klin. Woch.* of April 12, 1886, iron advocated as an effectual remedy for gastric ulcer. The published observations were made by Dr. Gempt with the liquor ferri albuminati prepared by Dr. Drees, an apothecary of Bentheim (Hanover). This drug represents a salt in which the acid, as it were, had been substituted by albumen. It is of a neutral reaction, free from a metallic or astringent taste, well preservable, and highly absorbable.

Gempt had previously ascertained, in an experience of five years, that in chlorosis and anæmia the albuminate solution of iron was the most digestible and reliable of all preparations of iron; and, after having tried the remedy with success in the reconvalescence following upon gastric ulcer, he began to cautiously administer the drug also in cases in which the gastric ulcer was still present. The dose used by our author was one-half to one fl. drachm, given three times daily to adults and 5 to 30 drops for children, always to be taken before meal time. If a diluent be desirable, milk is the best vehicle. The absence of acidity in the drug precludes any injury to the teeth or mucous membranes of the digestive tract. Hence, Gempt observed in no instance, even after an uninterrupted use for several months, gastric pains or digestive troubles resulting from the remedy.

It should be especially mentioned that the drug appeared to exercise a direct influence upon hemorrhages from the stomach. The Carlsbad salt was found a useful adjuvant to the albuminate. In conclusion, Gempt makes the important statement that, aside of numerous other affections, this drug has repeatedly proved a cure in the incipient stages of pulmonary phthisis, the so-called catarrhs of the apex.

If the albuminate of iron should in reality be found to be wholly exempt from the objectionable features of other preparations of this metal, and at the same time to possess their medicinal value, the field of practical usefulness of iron would be widely increased.

A SCHEMATIC EYE FOR STUDENTS OF OPHTHALMOLOGY.*

BY J. B. EMERSON, M.D.,

Assistant Surgeon to the Manhattan Eye and Ear Hospital; Instructor in the N. Y. Post-Graduate Med. School.

THE most difficult part of ophthalmoscopy for the student to master is refraction, and as a good knowledge of this can only be attained by long-continued and careful practice, many students are deficient in it through lack of time and suitable subjects for examination.

In order to assist those who desire to perfect themselves in this branch of ophthalmology, an instrument has been arranged, which may be called the student's schematic eye, and which differs in some respects from those now in

use. It consists of a tube 2½ inches in length and 1⅛ inch in diameter, attached by a hinge to a vertical rod, which rests on a stand and can be raised or lowered at will. In one end of this tube is a convex lens of 3 inches (13 D.) focal distance, which represents the refractive media of the eye. Just behind this is a diaphragm which represents the iris and pupil. Telescoped in the other end of the tube is a second tube, 2½ in length, which is moved in or out by means of a rack and pinion. At the remote end of the second tube is a disk of metal which represents the retina, and on it is placed a card, in the centre of which is a circle 1-10th of an inch in diameter, with two lines crossing the centre at right angles to each other. In the space about the lines are photographed sentences, the letters of which are too small to be distinguished without a magnifying-glass (about one-half size of No. 1 Jaeger). If we place this disk at 3 inches from the lens, we have the condition of an emmetropic eye; if it is moved nearer we have hypermetropia; if further, myopia. The inner tube is graduated to show the degree of each.

This instrument can be made useful in three ways:

1. For teaching the direct method of ophthalmoscopic examination. A light and mirror are then used as in examining the human eye. When the tube is adjusted at 0 it will be impossible to read the words on the disk unless the accommodation of the eye of the examiner is fully relaxed. By shortening the distance it can be read with glasses that correct the hypermetropia. If the distance is increased it will require, to read the letters, a concave glass which corrects the myopia. By substituting the astigmatic lens, the circle appears elliptical, and the vertical, or horizontal lines will be distinct or blurred as the axis or disk is changed from one position to another. By using the indirect method of examination it can be clearly demonstrated that the fundus is inverted.

2. For the practice of retinoscopy, or the shadow test. To do this a ring is placed on the front of the tube, with grooves for holding two trial lenses.

3. For demonstrating the principles of refraction. In this case a disk of ground glass is substituted for the metallic disk, and by observing the images formed on it by distant objects, emmetropia, hypermetropia, myopia and astigmatism, with the effects of their respective correcting lenses, can be clearly shown. It may be procured of Meyrowitz Brothers.

* An abstract from the Medical Record.

Cremation in France.—Decorative artists and sculptors are preparing to adapt themselves to the crematory movement, which has now in its favor a vote of the municipal council adopting the plan of a mortuary furnace, and granting a site in Pére la Chaise, where it will soon be in operation. The expense of cremation is not, it is settled, to exceed fifteen francs. The municipality will, at a future sitting, vote the construction of a sort of lay temple, where families will be allowed to keep urns or other funeral vessels containing the ashes of dead relatives. This will not necessarily do away with any religious ceremony short of consigning the dead to consecrated ground; but as M. Koechlin Schwartz says, there is no reason why urns may not be consecrated or why Protestants, Catholics, Jews, and Free Thinkers may not subscribe to build a vast mausoleum, in which the ashes of thousands could be deposited in beautiful vessels without injury to the living. It is probable that, cremation being now legal in such an art-centre as Paris, new and beautiful forms of artistic decoration will grow out of it. The time required for the combustion of an adult at Pére la Chaise will be two hours.

Alcohol and Life Insurance.—Mr. Nieson, an eminent English actuary, a few years since investigated the risks of the life companies of England, with special regard to the effects of alcohol upon the duration of life. His conclusions were embodied in three propositions:

1. When in a given number of risks ten temperate persons die between the ages of fifteen and twenty, eighteen intemperate persons die.

2. When in a given number of risks ten temperate persons die between the ages of twenty-one and thirty, fifty-one intemperate persons die.

3. When in a given number of risks ten temperate persons die between the ages of thirty-one and forty, about forty intemperate die.

The average expectancy of life, he gives thus: at twenty, a temperate person may live 44.2 years; an intemperate person 15.6 years. At thirty, the respective expectancies are: temperate, 35.5 years; intemperate, 13.8 years. At forty, temperate, 28.8 years; intemperate, 11.5 years.

The New York Medical Times.

A MONTHLY JOURNAL

OF

MEDICINE, SURGERY, AND COLLATERAL SCIENCES.

EDITORS:

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Business Communications should be addressed, "Publishers, 526 Fifth Ave.," and Checks, etc., made payable to THE NEW YORK MEDICAL TIMES.

Published on the First of each month.

OFFICE, 526 FIFTH AVENUE, NEW YORK.

NEW YORK, AUGUST, 1886.

THERMIC FEVER—SUNSTROKE.

THE heats of summer bring with them a class of diseases the result of intense heat which exhaust vitality, disturb digestion, and often kindle up a fever exceedingly violent in character and often fatal in results. The fact which has been so abundantly proved, that sunstroke, or *coup de soleil*, to which the name of thermic fever was given by Dr. H. C. Wood in 1863, does not arise alone, as was formerly supposed, by the direct rays of the sun, but by long-continued, intense heat, accounts for the existence of this fever in persons of feeble vitality who have not for any time been exposed to the direct rays of the sun. M. Boudin records an epidemic of what was undoubtedly thermic fever, which occurred on a French man-of-war, in which there were more than a hundred cases, most of which occurred at night, when the men were lying in their bunks, and Boneman says that by far the greatest number of cases that yearly occur in India are of men who have not been exposed to the sun. It is not unusual for men to go to bed in apparent health and be seized during the night. These facts show conclusively that the cause of the disease is long-continued and excessive heat, either in the darkness or sunlight, acting upon a vitality weakened by labor, by excess of the table and the wine cup, or by mental fatigue and worry.

Barclay, in his work on some of the diseases of India, records the fact that in the Sepoy rebellion a regiment made a hasty march of over eleven hundred miles, chiefly through the lowlands of India, in the hottest season of the year. No cases of sunstroke occurred for nine hundred and fifty miles. By this time the regiment was thoroughly exhausted. They rested for eight days, and then passed through the Bisramgunge Gap, a narrow ravine with the walls rising nearly a mile high on either side, and the thermometer ranging from 115° to 127° during the day and one night 105° at midnight. The heat of the weather, with the exhaustion and emaciation of the soldiers, produced the effect of prostrating nearly the whole of the regiment, several officers and men dying.

Steschenow has advanced a theory, which has been confirmed by the experiments of Dr. H. C. Wood, that there is in the pons a centre whose function is to inhibit the production of animal heat, and that in the medulla a centre (probably the vaso motor centre) which regulates the dissipation of bodily heat; and that fever is due to disturbance of these centres, so that more heat is produced than normal and less thrown off. Dr. Wood says, in commenting upon this theory, "Let it be supposed that a man is placed in such an atmosphere that he is unable to get rid of the heat which the body is forming. The temperature of his body will gradually rise, and he may suffer from a gradual thermic fever. If early or late in this condition the inhibitory heat centre becomes exhausted by the effort it has been making to control the formation of heat, or becomes paralyzed by the direct action of the excessive temperature already reached, then suddenly all tissues will begin to form heat with the utmost rapidity, the bodily temperature will rise with a bound, and the man drop over with some one of the forms of *coup de soleil*."

In the summer complaints of children, especially that form recognized as enterocolitis, so common everywhere during the hot months, but more especially in the vitiated air of large cities, excessive heat is undoubtedly the chief factor. The symptoms are familiar to all. The high fever, intense thirst, vomiting and purging followed by cerebral disturbance, point to the same

cause as that which produced sunstroke in the adult, and requires very much the same treatment. It is an interesting fact that the post-mortem appearance of sunstroke and typhus fever are almost identical, as are also the similarity of symptoms. Dr. Wood, who has had a large experince in these cases, says, what is confirmed by our own observation, that the symptoms may be summed up as those of intense fever accompanied by profound nervous disturbance, as manifested by insensibility, with or without delirium, and by motor symptoms, such as convulsions or paralysis, by arrest of glandular action, and by changes in the blood.

In the treatment of these troubles we should remember that we must in some way get rid of the heat before it has overpowered and paralyzed the vital forces, and that the change in the vital fluid is from the rapid tissue changes produced by the fever and the more or less complete arrest of excretion. As a general thing, with a rapid withdrawal of the heat, the nervous system, aided by appropriate remedies, will gradually resume the normal tone which is marked by convalescence. We know of no remedies so effectual in bringing down the temperature in these cases as cold ablutions, the cold bath, rubbing with ice, and decided doses of antipyrin. If the danger is imminent, the antipyrin can be given hypodermically, in doses of from fifteen to twenty-five grains, but if the heat is slower in rising, or does not exceed 105° or 106°, it may be given internally in five-grain doses every hour until the desired effect is produced. If the temperature goes down too rapidly, stimulants may be needed, and if the heart's action is weak, digitalis. The careful physician will find no difficulty in determining the indications for the various drugs in the group of fever remedies, such as aconite, baptisia, gelseminum and veratrum vir. Each has its specific action, and will prove of great value where indicated; but in the continued high temperature, the nerve centres are so overpowered that they will not act until the fetters are broken by more active treatment. We have had more benefit in controlling the spasms in the convulsive stage with hypodermic injections of morphine, one-eighth or one-quarter of a grain, than with any other remedy. Its action is similar to what is seen in puerperal convulsions or spasms of the heart.

Thermic fever is often mistaken for typhus fever, the symptoms, as we have said before, closely corresponding to that disease and the pathological changes being almost identical. A careful inquiry of the surroundings of the patient at the time and a short time before the attack, in connection with the symptoms, will, as a general thing, be sufficient to determine the true nature of the malady.

THE LIMIT OF SCIENTIFIC DISCUSSION.

THERE are certain well-established scientific conclusions, such as the rotation of the earth, the movement of the planetary bodies of our solar system around a common centre, which no one disputes; they are admitted by all, and are therefore out of the plane of discussion. Outside of this centre is that border-land of science, where doubt and uncertainty give rise to discussion which is more or less bitter and unprofitable as the disputants understand or misunderstand each others' premises or line of reasoning. Science is exacting, and demands absolute and positive proof. When this is obtained, the subject is no longer open to discussion. It has become an established fact, and it is only necessary to state the steps by which the conclusions are reached. The very fact that a subject is discussed shows that it has not yet passed into the domain of established fact; and yet, an indisputable fact is often so incorrectly stated, so surrounded with false reasoning, that the mind is confused. The whole discussion may turn, not on the fact, for that may be established beyond dispute, but upon the application. Take, for instance, a belief in God. One man claims the existence of a personal God; another a God composed of three persons, and still another of a God who is the centre and fountain of spiritual wisdom and life. But does any one deny a power of some kind, call it by what name you will, a great first cause which guides and controls the universe? Get at what we really mean, what is proved and what is not proved, and it will often be found the difference is

not so great between orthodoxy and heresy as many suppose. More than nine-tenths of all the discussion in the world arises from a misunderstanding of terms and from a failure of comprehending the true meaning of our opponent in debate. Take, for instance, the doctrine of the resurrection. Who believes now in a literal coming forth from the grave of the natural body? And so with the doctrine of the Trinity; if we get down to facts, to the bed-rock of belief, the Unitarian and the Trinitarian will shake hands, and ninety-nine one hundredths of the church, outside of the Catholic faith, will wonder at the harmony between them, when they really comprehend what each other means. And what is true in theology is true in medicine. If Hahnemann had been less arbitrary in laying down the principle he formulated and insisted upon its universal application in therapeutics, which facts do not by any means bear out, asking only a place for it in the study and application of drugs, letting it stand by itself in its strength and dignity, instead of attaching to it the barnacles of false philosophy, the history of medical science during the past century would have shown a more rapid advancement and a far higher position than it now occupies. And yet, after the battles and arguments of a hundred years, time, which rights all things, is sweeping away the dross and the chaff, and leaving the great central truth standing out in its naked beauty, grandeur and simplicity. Who doubts now the truth of the principle of *similia*, under some name or other, or its far-reaching influence in the study and application of drugs, and who believes it to be a universal law, an infallible guide, in the treatment of disease? *Not one*. The smoke of the old battle, based partly on assumption and partially on misunderstanding, is still around us. It dims our sight and fires our blood, for we of this generation cannot forget the contest through which we have passed. But the battle is for the progressive portion of the profession practically over. We have all learned something during the past century—something of truth and something of respect and toleration for each other.

ELEMENTARY SUBSTANCES.

IN chemistry those forms or modifications of matter are looked upon as elementary substances which have heretofore resisted all attempts to decompose them. The recognized elements are about 63 in number, of which about 50 belong at present to the class metals. We say about, for under careful scientific investigation, one after another of the so-called elements are either transferred to the field of compound substances or so much doubt is thrown upon them that they are classed as doubtful. Sulphur, for instance, even in recent text-books, is classified as one of the elementary substances, occurring in nature as a greenish yellow, brittle, solid body, crystalline in structure, and yet the recent experiments of a distinguished French savant presented to the French Academy not only surrounds the subject with doubt but opens the way for a line of investigation with other elements which may upset all our old ideas.

Taking a quantity of earth and vegetable mould, he calculated from chemical tests and the spectroscope the amount of sulphur they contained, which was less than the tenth of a grain. Subjecting a sample of onion seed from a large package to similar tests, he had no difficulty in approximating the amount of sulphur in the seeds used for his experiments, which was only a fraction of a grain. When the seeds were planted, the whole was covered with a bell glass; they were watered with distilled water, and air forced in through water, so that there was no possible chance of sulphur being introduced in the form of sulphuretted hydrogen or sulphurous acid. When the onions reached maturity, they were carefully analyzed and ten grains of sulphur found. Where did it come from, and how did it get there? To the objection made by a member of the Academy, that the sulphur might have been introduced by the re-agents used, the experimenter demonstrated to the satisfaction of all that the steps had been so carefully guarded that this was impossible. The only conclusion which could be reached was that by some unseen and unknown process going on in the development of the plant the increased amount of sulphur had been ob-

tained. In fact, sulphur could no longer be considered an element, but must be looked upon as a compound substance. Possibly in the future all of the elements may be resolved into compound substances and the dream of the alchemist realized in manufacturing the precious metals in the crucible of the chemist as pure as they can now be obtained in the laboratory of nature. The facility with which one element unites with another, producing an almost endless variety of combinations each distinctively different and producing different results, removes to a great extent the certainty of action of any mineral substance, and often vegetable substances. When taken into the system, combinations are formed in the stomach and tissues of which we have but little idea, combinations which often change entirely the action we wish to produce. This of itself would render therapeutics any thing but an exact science, and shows why the same results are not always obtained by the same drug, the chemical conditions of the body being entirely unlike in different individuals and in different diseases. The microscope, the spectroscope, and the test-tube become more important as we more closely individualize our cases and adapt our treatment to the peculiar conditions of each individual.

SACCHARINE.

THE advances of chemistry are illustrated from the immense variety of useful products which it has obtained from coal tar, a substance which a few years ago was considered only as so much refuse material to be thrown away. Among the latest discoveries from this product is saccharine, which is about three hundred times sweeter than sugar. One grain dissolved in ten parts of water, or 1 to 70,000, is distinctly perceptible to the taste, while one grain of cane sugar can only be detected at the utmost when dissolved in half an ounce of water. The product was accurately described by Prof. Ira Remsen, of the Johns Hopkins University, in Vol. II. of the *American Chemical Journal*. In chemical language, saccharine is termed an anhydro-ortho-sulphamin benzoic acid. It is a white powder, readily soluble in warm water, and in alcohol and ether. Prof. Mosso has published the results of his studies of the physiological action of this product in the *Archivo per le Scienze Mediche*, 1880, in which it seems that no toxic or deleterious effect is produced either in animals or the human organism.

Notwithstanding the cost of saccharine, about $125 a pound, it is so intensely sweet that but very little is required to produce the desired taste, and can therefore be used in diabetic cases with great comfort to the patient, only a grain being required to a cup of coffee. In those conditions of the stomach and the digestive tract, especially in children, where sugar and starchy compounds produce fermentation followed by more or less acidity, the new product can be used with decided advantage. Saccharine is excreted through the urine in the same condition as when taken into the stomach, and can be tasted in the urine in fifteen minutes after it has been injected under the skin. So little of saccharine is required to produce the desired effect that, notwithstanding its apparent immense cost, it will be used to a certain degree; and as in therapeutics, it is to a certain extent antiseptic, and possesses none of the disadvantages of sugar, it will be looked upon as something more than a philosophic toy, and take its place as almost a necessary agent in the treatment of certain forms of disease. It will be a long time before its use will reach more than a few thousand pounds a year, while the product of cane sugar alone during the past year was 2,905,000 tons. This is a comfort, for inasmuch as Congress has recently legislated, after a wordy conflict, to discriminate in favor of butter against oleomargarine, it might possibly at a later day feel called upon to protect sugar growers against this product of coal tar.

CARELESS SURGERY.

A SOMEWHAT remarkable story comes to us in the *Pacific Medical and Surgical Journal* for January last, respecting one of our representative countrymen abroad, a famous dentist of the empire and intimate friend of Napoleon III. It is contained in an article on "the transplantation of

teeth," by W. J. Younger, M.D., who gives the incident as follows, in the words of his informant, the dentist himself:

"The last operation of this kind that I ever attempted was that on a certain marquise, who shall be nameless in consequence of the unfortunate results that followed the operation. She was a young, rich and lovely woman, but whose beauty was marred by the presence of four dead, black, badly decayed front teeth, which were a constant source of mortification to her. She had such an aversion to wearing false teeth that she would not consent to an antificial substitute; so the operation of transplantation was decided on. One of her maids was thereupon commissioned to search among her friends and acquaintances for a woman whose teeth would, in size, contour and color suit the requirements of the case. At last, one was found whose teeth seemed in every way suitable, and the consideration for them agreed upon. As it was not desirable that the parties should know or afterwards recognize one another, the utmost secrecy had been preserved, and was carried out to the end, in this wise: Two chairs were placed back to back. The marquise, heavily veiled, was seated in one, and the woman, also heavily veiled, was then brought in and placed in the other. The lady's teeth were then drawn and laid aside, and then the woman's, which were immediately fitted into the gaping sockets of the marquise's, and tied in by ligatures to the adjoining teeth. The woman was then led out, paid, and all further interest in her, I suppose, ended. Not so, however, for, as it afterwards transpired, this woman had been leading an immoral life, had contracted a loathsome disease, which was, unfortunately, communicated to the marquise, and produced in her great anguish of mind and body, and the subsequent loss of the teeth. I came in for a share of the blame, for not having sufficiently examined the woman as to her health and moral status. I then determined never to perform the operation of transplantation again; it was fraught with too much danger."

We should think so. Dr. Evans should not have stopped here. He should have resolved never again to attempt any operation whatever, involving more than mere manual dexterity. However deftly he may have handled the imperial jaws, a gentleman so lacking in professional judgment and caution was evidently not intended by nature for the practice of surgery.

OVERTURES TO PEACE.

THE Boylston Medical Society of Harvard Medical School, as representative of the "old school" of medicine, extended the right hand in brotherly friendship, when it invited Dr. C. Wesselhœft to give his views upon homœopathy before this old and conservative organization about one year ago. In turn, the Hahnemann Society of Boston University School of Medicine invited Dr. V. Y. Bowditch, President of Boylston Medical Society, to appear before them and discuss the subject of "Homœopathy as Viewed by a Member of the Massachusetts Medical Society."

This proceeding marks an era which would not have been anticipated until recently, is in the direction of the long-talked-of millennium, and the overture came quite properly from the stronger party in the controversy.

As will be remembered, the subject was introduced by a series of questions which Dr. Wesselhœft answered in his usual able manner, and a fairer exponent could not have been selected. The same plan was followed by Dr. Bowditch, and we propose to give our readers opportunity to judge of his arguments by printing his address in full in our columns. The discussion throughout thus far has been characterized by that courtesy, candor, and good tact which should ever prevail with gentlemen, and shows a great progress in our ethical relations.

Dr. Bowditch, in answering the first interrogatory, maintains "that the construction of a positive science of medicine" is an "absolute impossibility," and we should agree with him but for our knowledge of the positive effects of drugs upon the healthy human organism, by means of reports of poisoning cases within our reach. Dr. Bowditch will find in the "Cyclopædia of Drug Pathogenesy" some material which will enable him to ascertain the effect of drugs upon the hu-

man frame, and which will help us to construct a positive science of medicine.

We commend Dr. Bowditch's lecture to the careful consideration of our readers, and sincerely hope that we may have more fellowship of this kind because it tends to bring us all to an appreciation of the precepts of the Golden Rule!

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STEAM-HEATING PROBLEMS; or, Questions, Answers, and Descriptions relating to Steam-Heating and Steam-Fitting. From *The Sanitary Engineer*. With one hundred and nine illustrations. New York: *The Sanitary Engineer*. 1886. Pp. 234.

The Sanitary Engineer has collated from its pages articles which have appeared from time to time upon the different subjects included in the above heading, and published them in book form at the price of $3.00, post paid. The thorough and scientific manner in which all important questions are discussed in that journal give a marked value to the work.

BRIGHT'S DISEASE AND ALLIED AFFECTIONS OF THE KIDNEYS. By Charles W. Purdy, M.D., Queen's University, Professor of Genito-Urinary and Renal Diseases in the Chicago Polyclinic, etc. 8vo., 288 pages, with 18 illustrations. Cloth, $2. Philadelphia: Lea Brothers & Co., 1886.

The author has successfully carried out his plan of giving a practical and concise description of the pathology and treatment of the chief organic diseases of the kidneys connected with albuminuria. The discussion of scarlatinal and puerperal nephritis is much more systematic and practical than is generally seen in works of this character. The cause of uræmia still remains, in the opinion of the author, with which we heartily concur, an open question. The only conclusion which seems justifiable is that it arises from the failure of the kidneys to excrete the urine, in part or in whole, or in its primary elements; and that these either act as toxic agents on the system or generate some new and at present unknown agent (through conditions resulting from their accumulation) which acts as a poison in the organism, evoking the symptoms which we term uræmic.

We heartily endorse the use of hypodermic injections of morphine in uræmic convulsions, for which in former times the lancet was considered the only specific. The morphine seems to arrest the muscular spasm, and as Dr. Loomis has stated, "holds the patient until the normal elementary process is re-established." In spasms of the heart, where there is stenosis, the injections of morphine are most serviceable in controlling the spasm, holding the heart until other remedies can act.

Etiology of Traumatic Tetanus.—Repeated experiments by Rosenbach and Nicolaier have resulted, according to the former in his remarks at the congress Der Deutchen Geselschaft fur Chirurgie, held at Berlin on April 7, 1886 (*Ther. Gaz.*, June 15), in a demonstration of the pathogenetic microbe of tetanus. This, it is fair to assume, gives rise to the production of a poison similar to strychnine, which causes the general convulsions. At all events the infectious nature of tetanus can no longer be positively denied.

CORRESPONDENCE.

MEDICAL AND SURGICAL STUDIES AT HOME AND ABROAD.

STUDENTS and practitioners, to cross the ocean and avail themselves of the opportunities there afforded for study and observation, seems greater now than ever. Why is this custom becoming so popular? Two potent reasons may be assigned. 1st. The clinical privileges at European medical centres are unusually attractive and instructive. 2d. So many medical men of the present day are irresistibly drawn by the allurements of financial gain in the various fields of specialism that they must have a chance to see a great range of cases and become at home in the management and technical treatment of both medical and surgical cases as seen in the routine of professional life. To such men, an amphitheatre and a clinic are crowning attractions. There is a professional stillness, a profound respectful attention observed by clinical auditors, especially noted in London hospitals, that is charming. The dignity and seriousness of the situation is not detracted from by the firing of juiceless tobacco quids or regulation paper wads. If the clinical requirements referred only to quality in the matter of cases, Americans need not go abroad. We have as brilliant operators here as the world can produce, as keen diagnosticians, as competent practitioners. We, however, lack that superabundance of material which enriches and makes attractive the clinics of the other side. In New York, with a population something over a million and a half, many interesting cases may be seen, treatment observed and operations witnessed by classes. Philadelphia, Boston, St. Louis, Chicago, and other cities, through their respective college announcements, proclaim their superior clinical advantages. Each college is respectably well patronized, but the country adjacent to these colleges has to be scoured to get material enough to satisfy the class and enhance the lore of the clinical teacher. Constant effort and persistent laborious work is necessary to get material enough together to keep classes in patient, good-natured attendance through the college term. New York and Philadelphia are possible exceptions. By way of comparison, let me mention Chicago, with a population ranging from seven hundred and fifty to eight hundred thousand, and seven or eight medical colleges, each advertising extensive clinics, while in London, one hospital, "the London Hospital," have all the cases that come from a draining of that entire section of the city known as the East End. In our country, "the loaves and fishes," by industrious effort and political log-rolling, are divided into small portions and made to go as far as possible. European medical centres are all vastly over-populated, and the sections tributary are similarly situated. The great numbers, poorly fed, insufficiently clad, with inadequate living and breathing space, furnish the bulk of subjects in foreign clinics. The people of London are proverbial for their generous endowment of hospitals. With a more than ample population; with a medical and surgical profession remarkable far its ability and *esprit du corps*, why should not London prove a drawing card? In Europe, the hospitals outnumber the colleges, while here the reverse is true. In American cities, hospitals are usually located long distances apart, and too much time is consumed in making the rounds. In Europe, colleges and hospitals are conveniently near each other.

The medical and surgical profession in this country exhibit a dash and zeal that is commended the world over. We are, however young, and yet in swaddling clothes, not sufficiently old and mature to be given so largely to patient, laborious investigation and research as are our brethren of the other side. In time we shall pass the primitive stage and become more proficient with age and experience. Our population is fast amplifying its proportions, and soon we shall have hospitals in greatly multiplied numbers to furnish abundant clinical material to meet the growing demand of the times. When such a transition shall have been wrought, more than likely many medical students of Europe will be headed this way to get the benefits of an American curriculum.

C. S. ELDRIDGE, M. D.

TREMONT HOUSE, CHICAGO,
July, 1886.

OUR INSTITUTE LETTER.

THE Thirty-ninth Annual Session and the Forty-third Anniversary of the American Institute of Homœopathy, as well as one of the most successful of the series, was held at Saratoga Springs, on June 28th, and the following days.

A large attendance was present on the opening night. The mammoth hotel, the elysian grounds, the prompt attention and care for everyone, together with perfect weather, will make this session long to be remembered by all who were there. We hope the glitter will not be tarnished on our next visit, which is the coming year and a new departure for the Institute to lodge a second time on the same spot. Michigan State Society sent a pressing invitation to visit them for the first time, but a majority of fourteen tarried the Institute for another year.

The veterans were out in goodly numbers among whom we noted Dr. Detwiler, of Easton, Pa., aged 92 years, and still in active practice, also Dr. Ball, of New York, aged 87 years. The Institute did itself honor by asking these two to seats upon the platform. Among the others were seen the regular attendants, Dake, Talbot, Hall, Smiths, D. S. and T. F., McClelland, Willard and others, all of whom had a word of interest and profit to give to the Institute meetings; and from this the attendance ranged down to the yearling, who, if not a member, may in the course of time become a mother of members. Among the visitors were Dr. Arnulph and wife of Nice, France, and Dr. Becket, of England.

The bureaus were ably represented, the reports of all with one exception, being presented by the regular chairman. A number of interesting papers were presented, and it is to be regretted that they will probably be read by few when received from the secretary.

A special committee was appointed to consider the advisability of issuing the transactions in quarterly numbers. While this might gain some additional readers for the papers, it would certainly make those papers coming out in the last number, stone-cold, and entail continuous work on the one whose duty it was to issue the numbers.

Next year an attempt will be made again to hold sectional meetings, and with greater success in the work of the institute, we think, than at present. We still urge the adoption of the single paper plan, to be prepared far enough in advance to enable at least half a dozen men of practical experience, to give it careful study and then come prepared to discuss it intelligently.

Some reform was made in cutting off superfluous bureaus and titles and condensing the work of standing committees.

In the scientific work of the institute we note continued experiments in the line of examinations as to drug divisibility.

Every one indulged at the health-giving springs of this famous resort, enjoyed the walks and drives through the village, and made the pilgrimage to Mt. McGregor. It was a successful meeting from the beginning to the close, and very much was added to the social enjoyment by the fact that not a banquet address was heard. For one, we hope this will continue to the end.

Let every member of the institute resolve now, that life and health permitting, he will be present at the next session and give his or her aid to making it more of a success, if possible, under the Presidency of Dr. F. H. Orme,* of Atlanta, Ga., than the present meeting was. T. M. S.

TRANSLATIONS, GLEANINGS, ETC.

REPORT ON THE DISEASES OF THE NOSE AND THROAT.

(*Continued from Page 127.*)

BY T. M. S.

Membranous Occlusion of both Posterior Orifices of the Nose.——The patient was 70 years of age and had been troubled with nasal obstruction since infancy, which was complete on the right side, but on the left air passed from time to time. Although always breathing by the mouth her general health had been good. Hearing had always been feeble on the right side and for many years she suffered with frontal and supraorbital neuralgia of both sides. Examination showed thickening of the turbinated bones, especially on the right side, while the nasal fossa was filled with a viscid and whitish mucus. Posterior rhinoscopy showed a smooth, reddish wall covering both nares. On the left side it was perforated at two points close together. By the aid of a probe it was discovered that this wall was formed by a thin membrane, which covered not only the nasal orifices, but also the lateral walls of the pharynx and the Eustachian orifices. Syphilis and gonorrhœa being excluded, the diagnosis of membranous formation, congenital or acquired in infancy from some unknown cause, was made. The two small openings on the left side were dilated with bougies and later the galvanic cautery was used. The membrane on the right side could be pierced at two points only with the bougies. The age of the patient and the weakness due to the operations, prevented any further attempts. She was able to breathe freely enough through the left side, and occasionally a little by the right. The hearing was slightly improved, but the neuralgic pains returned in the winter. An analogous case has been published by Schrœtter.

Dr. Casselberry (*Jour. Med. Sci.*) reports a case occurring in a man of forty, a native of Russian Poland. Symptoms of obstruction of the left nasal passage had been complained of for thirteen years, with left-sided deafness and

* The Institute honored itself when it selected Dr. Orme as its presiding officer.—EDS.

tinnitus aurium. Examination showed the left choana to be covered almost completely by a tense membrane, so that only a narrow chink was left at the septum; the left Eustachian orifice was hidden. On the right side a membrane prevented a view of the superior turbinated body, the outer half of the middle bone, and the Eustachian orifice. After preliminary training, the membranes were divided with a galvano cautery knife introduced through the mouth, under rhinoscopic guidance. Three operations were necessary on the left and four on the right. The malformation was thought to have been congenital.

Papillomata of Nasal Fossæ.—(Aysaguer, *Rev. Mens. de Laryn.*)—1. A woman, 35 years of age, in whom the growth filled almost the whole of the left cavity, and was attached to the lower turbinated bone, floor, and septum. 2. A woman, 38 years of age, with two tumors the size of a bean situated in the anterior third of the floor of the left nasal fossa. Removal was effected in both cases with the galvanic cautery. The microscope showed true papillomatous growth, and not combined with adenoma or sarcoma, as in the greater portion of the 14 cases reported by Hopmann. The author believes that the papillomata of the nose do not return as easily as those of the larynx, because they can be much more thoroughly removed with the cautery than those in the throat.

Hoarseness.—(Farrington, *Hah. Month.*)—*Arum Triphyllum;* Hoarseness which is characterized by a lack of control over the vocal cords. If the speaker attempts to raise his voice, it suddenly goes off in a squeak. Useful in clergyman's sore throat with this symptom. *Graphites* has a somewhat similar hoarseness and uncertainty of voice, and is an excellent remedy for singers when they cannot control their vocal cords; when they get hoarse as soon as they begin to sing and the voice cracks. In *selenium*, also, the patient gets hoarse as soon as he begins to sing.

Is there a Cortical Centre for the Larynx?—(Lannois, *Rev. Mens. de Laryn.*)—Krause's experiments would seem to point to a portion of the cerebral cortex, the præfrontalis gyrus, in which there exists a region which presides, not only over the movements of the anterior muscles of the neck, but also over the movements of the larynx and throat. The clinic does not furnish much to determine this question. Observations have been published, however, which point to the direct action of the brain over the acts of phonation. It is evident that there exists points in the brain, lesions of which interfere with the normal movements of the vocal cords. Dr. Seguin (and Dr. Delavan agrees with him) thinks that in the third right frontal convolution, there is an intimate functional connection with the muscles governing the movements of articulation and phonation; the latter puts the cortical centre on the right side near Broca's convolution.

Dr. Garl (*Idem.*), reports the following case: A woman, 72 years of age, had an apoplectic stroke, with loss of consciousness, right hemiplegia, facial paralysis of the same side, and aphasia. The consciousness was slowly regained, but the aphasia only partially disappeared. Seven days after the attack, a laryngoscopic examination showed paralysis of the left vocal cord instead of the right as expected. There was no sign of compression of the left recurrent nerve, nor did the larynx present any lession capable of explaining the condition. Death occurred 19 days after the attack. *Autopsy.*—Atheromatous lesions of the vessels at the base of the brain; the left hemisphere presented 4 or 5 points of red softening corresponding to the classic lesions—aphasia with paralysis of the members of the right side. The right hemisphere showed lesions localized in the posterior portion of the third frontal, and a distinct centre of softening, of limited extent, affecting only the cortex, and reaching to a level with the sulcus lying in front of the ascending frontal. The latter had a slight erosion upon the surface, at its lower portion.

Digital Examination and Denudation in Chronic Nasal Catarrh.—(Allen, *Jour. Med. Sci.*)—The author has been in the habit of regarding the altered mucous membrane of the turbinated bones in chronic nasal catarrh as though it was periosteum; in a word, the muco-periosteum can be divided or removed, the bone can be scraped or excised with freedom and often with advantage. For the purpose of determining the condition of the tract, a digital examination under ether is recommended. The index finger is passed with gentle pressure upward and backward to the plane of the level of the middle turbinated bone. If healthy, the membrane has a firm, resilient touch; if chronically inflamed, the membrane is softer than in health, and is at once detached from the bone at the point of contact. The membrane can be removed from the bone by pushing the finger along its course. In the same manner, a displaced bone can be forced into a more favorable position. Sometimes the perpendicular plate of the vomer has to be displaced. He has found, as a rule, that the turbinated bone towards which the plate is deflected, is the largest, and suggests the probability of an exceptionally large lateral mass of the ethmoid bone acting as a predisposing cause to chronic inflammation. The large surface is placed at a disadvantage in flushing off secretions; the parts remain unventilated for long intervals, and the temperature keeps too high to be consistent with health. The bleeding following the examination is slight and easily controlled; in one case only was there an after inflammatory swelling, and this was of the septum, and gave the sensations of a severe attack of coryza. Marked improvement follows the above manipulation, and the parts act more readily to well-known agents, which before the examination are often applied without effect. It is submitted that the manipulation is an aid to the diagnosis of nasal affections, and that the act of denudation is a safe and useful procedure.

A Case of Distortion of the Larynx.—(Gleitsman, *N. Y. Med. Presse.*)—The patient was a man 52 years of age, of general good health, complaining only of a slight difficulty in breathing, which was very much aggravated on ascending stairs or when at heavy work. A hard fibrous growth lay in the middle line of the neck, extending to the side and backwards, rather than forwards. The larynx was displaced to the right. On laryngoscopic examination, it was seen that the epiglottis was only slightly displaced to the right, and by easy respiration only a part of the left portion of the larynx and the left vocal band could be seen. On forced phonation it could be seen that the vocal cords were lying in a diagonal position from the right backwards, with the right one higher than the left. There was thus a vertical and horizontal twisting of the entire laryngeal box.

Hæmatoma of the Larynx following a Traumatism.—(Perotti, *Rev. Mens. de Laryn.*)—A man knocked down in a fight received a kick in the anterior portion of the neck, and

was carried home. The voice disappeared slowly, and a severe dyspnœa set in which increased rapidly. Death at the end of two hours. *Autopsy.*—Extensive bloody infiltration, beneath the skin, on both sides of the larynx, but more marked on the left. The blood was thin and of a blackish color. On raising the larynx it was found that this organ was obstructed by a bloody tumor of dark blue color. It was a subcutaneous hæmatoma having its point of departure in the upper region of the glottis and extending to the first rings of the trachea. The thyroid and cricoid cartilages were fractured. According to the author tracheotomy would probably have saved his life.

Reflex Neuroses from Nasal Affections.—Hering, *Annal des Mal. du Laryn.*)—1. There exists a causal relationship between all the series of reflex neuroses and nasal affections, as has been especially pointed out by Hack; 2. I have confirmed this fact in the following: neuroses, asthma, migrane, vertigo, suborbital neuroses, laryngeal cough, sneezing, phonetic laryngo-spasm, hysterical aphonia, and dyspnœa; 3. Chronic hypertrophic rhinitis may provoke spasmodic asthma, just as the presence of a small polypus gives rise sometimes to spasm of the glottis or paroxysms of dyspnœa; 4. The same effects may be produced by inflammation or cysts of the middle turbinated, body excrescences of the septum, adhesion of the turbinated to the latter, and finally by any pressure or prolonged irritation excited by the turbinated upon the nasal septum. A mucous polypus of the nose situated between the septum and turbinated may cause the same reflex neurosis (spasm of the larynx), as an exostosis of the septum; the latter may provoke paroxysms of sneezing if it presses upon the inferior turbinated; 5. If the favorable conditions for the production of reflex neuroses are removed, the latter cease, but reappear suddenly if the turbinated is irritated by means of a stylet; 6. These conditions are characterized, in general, by marked hyperæmia of the mucous membrane of the nose or thickening of the turbinated, or by an extreme irritability of these parts, or by a very profuse aqueous secretion, which is spontaneously produced by weeping or sneezing, and in general by a neuralgic aggravation at the moment of cough; 7. On account of the frequent relapses which may take place, the patient should be warned of the possibility of failure, and not misled by false promises.

Foreign Body in the Nasal Passages.—(Dr. Cohen, *Jour. Med. Sci.*)—Dr. Porter reports a case in which the escape of an embryonic tooth into the nasal passages produced a chronic nasopharyngeal catarrh, which underwent cure soon after the spontaneous expulsion of the foreign body.

Vasomotor Disturbances of the Nasal Passages.—(*Idem.*)—Dr. Glasgow describes three cases illustrating a condition which he at one time considered to be modified hay fever. It occurs, however, at all seasons of the year. The prominent features are great swelling of the cavernous tissue, profuse discharge of limpid fluid, and abnormal pallor of the mucous membrane. The latter condition, he thinks, points to increased constriction rather than relaxation of the vessels.

Valerian in Diabetes Insipidus.—Demange says in *L' Union Medicale*, that diabetes insipidus is best treated by valerian in doses of two to four drachms of the powder per diem. This drug was highly praised by Trousseau, and has been revived since by Bouchard.

DISEASES OF THE RESPIRATORY ORGANS.

By T. M. S.

Two cases of Bronchiectasis treated by Paracentesis.—(*Medical News*).—Case 1. Male, age 67 years, who had suffered for two years with chronic bronchitis and emphysema, and six months later had dry pleurisy of the right lung. After the pleurisy, the expectoration before moderate, became profuse and somewhat fetid, the cough more and more harassing, which travel and antiseptic treatment failed to relieve. Examination showed a bronchiectasis in the lower lobe of the left lung, the pleura of which was adherent; tubular sounds were heard over two small areas, in the eighth interspace. An aspirating trocar and canula was introduced into one of the spaces, and under antiseptic precautions the cavity was opened and a drainage tube inserted. The cough ceased; the expectoration, which was for a few days pneumonic, diminished from one pint a day to a few pellets, and became free from odor; and the patient gained flesh rapidly. In a few weeks the discharge ceased and the wound healed up; examination of the chest showed the absence of the tubular sound from both spaces, and further shrinking of the chest wall. The patient, nine months later, was free from cough and expectoration, and was able to walk four miles at a stretch.

Case 2.—A girl, age 21 years, who had cough and expectoration, becoming fetid, together with several attacks of hæmoptysis, following an attack of typhoid fever. Examination of the chest showed several bronchiectases. An exploratory trocar was passed into three of these spots, but without result, and an attempt to cut down on the cavity failed. Later the eighth rib was excised for about one inch, and the trocar passed to a depth of five inches, when it was cut down upon and a drainage tube inserted. The wound gradually healed, and the patient left the hospital considerably improved, the cough slight and the sputum diminished to about three ounces a day, and being only occasionally fetid. The presence of bronchiectasis in other parts of the left lung, and possibly in the right precluded as favorable results as in the other case. Four other cases are referred to, in which results were only partial, on account of the number of the bronchial dilatations. The arguments in favor of the operations were:

1. The tendency to death by septicæmia in some form unless proper drainage was effected; 2. The reduction in the amount of expectoration, this being due, not only to the removal of the matter, but to the disappearance of the effects of its irritation on the healthy bronchi; 3. The invulnerability of the lung tissue, it being proved that punctures of this tissue give rise to little or no disturbance to the part, or to the system generally. The difficulties of the operation were in the diagnosis of the position of the bronchiectases; (1) from the presence of the emphysema, and (2) from the reverberatory character of their auscultatory sounds, which rendered exact localization very difficult. Paracentesis seemed to be indicated; 1. In cases where antiseptic treatment of all kinds having failed to correct the fetor of expectoration, and to allay the harassing nature of the cough, death by septic pneumonia seemed imminent; 2. Where the evidence went to prove that the bronchiectases were confined to one lung, were situated in the lower lobe, and had overlying them an adherent pleura. It was not indicated where multiple bronchiectases existed in both lungs, where they were surrounded by emphysema, and where the pleura was non-adherent.

XUM

Empyema Following Scarlatina.—(Marshall, *Archiv. Pediatrics.*) The first case was a boy, age 9 years, in whom signs of pleuritic effusion appeared while convalescing from scarlatina. This gradually increased and on Oct. 25th, paracentesis was performed in the axillary line and fifth intercostal space, and twenty-eight ounces of fluid, healthy-looking pus was withdrawn and the wound closed with a carbolic dressing. This was followed by relief until Nov. 21st, when signs of pleural effusion reappeared, and there was extreme emaciation with clubbing of the finger-nails, and the evening pyrexia had returned. The expectoration of pus continued. On Dec. 3d, a fluctuating swelling appeared at the seat of puncture in the chest, with dyspnœa and absolute dullness. Six ounces of pus was removed, but not giving complete relief, a free opening was made in the side, and on inserting a drainage tube forty ounces of pus came away, which was free from smell. The operation was done with antiseptic precautions, and a carbolic acid dressing applied. In a few weeks he was able to run around, a small quantity of inodorous pus discharging from the wound. The circumference of the chest was eleven and one-quarter inches on the right side, and thirteen on the left. The drainage tube was removed, but had to be replaced. He was discharged, wearing still the tube, and in Oct., 1885, he was seen and found to be in fair health, there being a slight discharge from the wound and the collapsed condition of the side continued, though not in such a marked degree.

The second case was admitted on May 8th, 1884, and later showed albuminuric conditions. On June 5th there was dullness over the whole left side, back and front, and the respiratory murmur was extremely faint; the apex beat was displaced to the right; dyspnœa not marked, but the breathing was somewhat accelerated. Exploration with the aspirator detected pus, and a free opening gave exit to between two and three pints of creamy yellow pus, with a slightly offensive odor. A drainage tube was inserted. Relief followed the operation, the temperature being 100.2°, and the urine albuminous. The wound was dressed daily with antiseptic precautions, the discharge gradually lessening and then ceasing. At this time he had a marked, though not very severe, attack of enteric fever. He was dismissed cured, with no perceptible contraction on the left side, and the breath sound was good all over the lung.

Traumatic Empyema.—(Seay, *Gaillard's Med. Jour.*)—A baby, aged one year and three months, had hæmoptysis, pulse 160, temperature 102°, and respiration 40; the lungs were resonant upon percussion, except the lower portion of the right lung, which gave a dull percussion note. The breathing was intensely puerile, and there were violent paroxysms of coughing, with expectoration of bright red blood. Ten days later a swelling appeared at the back part of the lung, below the seventh rib, which, on incision, discharged a large quantity of pus. A few days later a piece of fantail grass, having a beard and stem each an inch in length, passed from the wound. The grass, according to the statement of the parents, had been swallowed six months before.

Treatment of Empyema.—(*Jour. of Med. Sci.*)—Godlee (*Lancet*), reviewing the whole subject, points out how much the age of the patient influences the prognosis, children recovering from the various operations and disposing of residues of pus more easily than do adults, and he records several cases amongst the former in which a single aspiration effected a permanent cure. If, however, aspiration has been employed several times without success, he advocates freely opening the cavity a little below and outside the lower angle of the scapula, at the same time excising part of the eighth or ninth rib. Sometimes the pyogenic membrane is scraped away, at other times iodine solution is injected, but the occasional danger of both measures hinders their being considered always advisable. The use of iodoform, or other antiseptics, is strongly urged. Mr. Godlee has already performed Estlander's operation, and prefers to remove the thickened periosteum as well as the ribs, the danger from hemorrhage of the intercostal vessels being insignificant. In one case, parts measuring two inches each were removed from five ribs, with a good result. In children, an attempt to dispense with drainage may be made much sooner than in adults, in whom the tube should be worn as long as pus continues to discharge. Patients with chronic phthisis and empyema should not be operated on unless the latter condition is causing much inconvenience; the same applies to cases in which the cavity is quietly discharging its contents through the bronchi.

Fischer, of Strassburg, advises that the opening should be made in the seventh or eighth intercostal space, in the line of the scapula (in this agreeing with Mr. Godlee), and invariably excises part of a rib at the same time. He employs injections (by preference one containing chloride of zinc), only, if the pus is foul, and uses wood-wool as a dressing. Resection of several ribs is only justifiable when the patient has been allowed to get about for some time, and the cavity shows no signs of closing.

In a record of forty cases Cormack gives ten fatal results of Estlander's operation, and the same number of complete cures. The procedure is best undertaken after an interval of from six to twelve months from the formation of the fistula. A very large cavity, extensive tuberculosis, and communication with a bronchus are contraindications. Dr. Maclaren successfully removed parts of six ribs in a boy aged eighteen, and suggests that the cartilages may also be divided in cases in which much diminution of the cavity is aimed at.

Rose, of Berlin, has lately excised parts of eight ribs from a patient with empyema, with a successful result.

Injections into the Lungs in Phthisis.—Gougenheim (*Brit. Med. Jour.*) uses injections of bichloride of mercury (1-500, 1-1,000, 1-2,000) into the intra-parenchymatous tissue of the lungs. On the left side below the clavicle, through the first intercostal space, the injection passes easily and safely into the lung. On the right side between the two first intercostal spaces, it is necessary to make the injection at a distance from the sternum and the rib, so as not to injure the intercostal and mammary vessels and nerves. The subclavian and subcutaneous veins should be avoided. Give the injection slowly. No muscular, pleural or pulmonary lesions were observed which could be attributed to these injections. In 33 cases of advanced phthisis, 21 improved quickly and undeniably, 10 out of 30 died, and among these seven presented local modifications of lesions which were easily detected at the post-mortem.

Diaphragmatic Pleurisy.— (Donaldson, *Jour. Med. Sciences.*)—After giving the history of the subject the following case is related: The patient, a man about forty-one years of age, had been sick for nine weeks; his illness had begun with a chill, followed by intense pain referred to

the lower intercostal region, more particularly on the right side, over the liver, with great and increasing difficulty of respiration. He had been, almost from the first, unable to lie down, sitting always with the body bent forward, and his hands pressed to his side to prevent any extra motion. His cough was incessant and dry, his dyspnœa and anxiety of countenance, even at this time, painful to behold. On examination the abdomen was found retracted, the diaphragm almost immobile, and the respiration entirely costal. There were points anteriorly and posteriorly painful to pressure. On percussion, some dullness was observed around the lower part of the chest, especially on the right side behind. On auscultation, pleural friction sounds were heard on the left side only; on the right, feeble respiratory murmur, with subcrepitant rales in a circumscribed space at the base of the lung, the inflammation having extended from the diaphragm to the lung and set up a localized pneumonia. A diagnosis of diaphragmatic pleurisy of tubercular origin, with slight effusion on the right side was made. The patient grew gradually worse, the spot of pneumonia was not resolved, and his lung began to break down. Owing to the great pain that any movement of the diaphpragm gave him, he was able to expectorate to a limited extent only, which increased his sufferings and hastened his death.

Primary inflammation of the musculo-tendinous structure of the diaphragm is very rare, though it occurs in the course of acute rheumatism, in penetrating wounds, and in injuries of the chest. Inflammation of the diaphragmatic pleura is much more frequent, and is caused by pleurisy, pneumonia, hepatitis, peritonitis, wounds of the chest and abdomen, fracture of the lower ribs, blows at the base of the chest, currents of cold air on the perspiring body, immoderate laughter, continued crying and weeping, the suppression of rheumatism, tight lacing and corsets. It is most frequent in adults and women, and generally unilateral. Secondary inflammation is most often caused by tuberculosis and is invariably fatal. It occurs also in the convalescence from acute rheumatism, and is usually double and not necessarily fatal. General, partial or puerperal peritonitis often sets up this secondary inflammation. The disease is ushered in with a chill more or less severe, followed by fever and sweat. Intense pain in the side, constriction of the chest and dyspnœa soon follow. The pain extends over a large surface, and is due to the fact of the varied distribution of the phrenic nerve. The patient sits bent forward, with the hands held to the side to prevent every motion. The effusion may be at times excessive. The cough is dry, frequent and painful; the expectoration slight and thin. Hiccough is at times a distressing symptom, and nausea and vomiting may be present. Respiration being impeded auscultation gives very negative results. Great enfeeblement of the respiratory murmur on the affected side, a few subcrepitant rales at the base of the lung from its imperfect expansion and involvement in the inflammation of the adjacent pleura, and pleural friction sounds over the diaphragmatic area, are the only signs present to the ear. The course of the disease is variable. In primitive cases the invasion is rapid, the symptoms quickly reaching their greatest intensity, and soon subsiding. Double pleurisy rarely begins as such, one side being affected first. Secondary pleurisy is often complicated by pericarditis, peritonitis, etc., and is usually fatal. The diagnosis cannot be based on any particular sign or symptom. De Mussy, however, calls attention to the "diaphragmatic button" as occurring in no other disease. This sensitive point is located one or two fingers' breadth from the middle line, on a level with the tenth rib, or at the intersection of a line drawn from the osseous part of the tenth rib and one drawn along the border of the sternum. He explains the greater pain at this point by the greater play of the rib and consequent friction against the inflamed nerve. Acute diapragmatic pleurisy is to be differentiated from

1. *Rheumatism of the Diaphragm.*—Rheumatism of this structure is pyretic, the fever gradually increases for from one to eight hours, and the acute symptoms terminate spontaneously and without complication. It is unaccompanied by pain on percussion at the points described above, the pain being limited to the insertions of the diaphragmatic muscle.

2. *Inflammation of the Muscular Structure of the Diaphragm itself.*—Such a diagnosis it is almost impossible to make, though it is to be remembered that the latter is a very rare affection, and results from wounds or abscesses only.

3. *Neuralgia of the Diaphragm,* which in itself is often a symptom or result of acute inflammation of the diaphragm. When it is present, we must get at the cause, whether it is dependent on some affection of the heart or great veins, or on anæmia, hysteria, etc. The absence of fever, however, the side affected, and the intensity of provoked pains, will greatly assist in diagnosis.

4. *Costo-parietal Pleurisy.*—In this disease, though the pain in the side is as great as in diaphragmatic pleurisy, the seat of the pain is higher up, and, above all, it is accompanied by the well-known percussion and auscultatory signs which are wanting in diaphragmatic pleurisy. Of course, they may and do exist together. Peter gives a case of diaphragmatic pleurisy with encysted effusion in a phthisical patient which was overlooked and mistaken for caseous pneumonia on account of the compression of the lung by the fluid.

5. *Pericarditis.*—In pericarditis we sometimes have pain along the course of the phrenic nerve; when such pain is present, however, the affection of the heart is complicated by some other disease, as in a case recorded by Bouillaud of a pericarditis with purulent pleurisy, involving the diaphragm. De Mussy gives the differential character of the pain in diaphragmatic pleurisy and pericarditis somewhat as follows: Whereas in the former, the principal point of pain is in the "bouton diaphragmatique," on the right side, in the latter it is in the costo-ziphoid angle, on the left side and immediately under the ziphoid appendage. The dyspnœa, too, is much less in pericarditis, and the physical signs on auscultation and percussion are distinctive, though the pericarditis may be concurrent with an inflammation on the left side of the diaphragm; eight such cases are reported by Hermil.

6. *Hepatitis.*—Right diaphragmatic pleurisy, with icterus, bilious vomiting, and displacement of the liver, may naturally be mistaken for acute hepatitis, which last, however, is a very rare disease with us. In it there are no painful points as in pleurisy, no great dyspnœa, no difficulty in the dorsal position; further, the pain produced by the pressure of the enlarged liver on the diaphragm is distinct from that produced by inflammation of the diaphragm itself.

7. *Circumscribed Peritonitis* of the superior part of the abdomen. A differential diagnosis is often difficult, for

the affections have in common the superficial pain over the abdomen, increased by pressure, the radiating pain extending from below upward even to the shoulder. The pulse in both is very small and frequent, and dyspnœa, hiccough, vomiting, dilatation of the stomach, icterus in cases of perihepatitis, all are sometimes present, in peritonitis. In the latter, however, we must seek for those symptoms apparently the least prominent; the functional troubles of each viscus found in peritonitis, and, above all, we must look for the antecedent cause of inflammation of the peritoneum, as cirrhosis, and cancer of the liver, or other organs. Thus, in a case given by Hermil, though the physical signs and symptoms were very misleading, the extreme dyspnœa, with absence of tumefaction on the right side, and of any swelling of the abdomen; absence of vomiting and icteric taint; the consolidation of the bases of both lungs and the characteristic pains over the "bouton diaphragmatique," settled the diagnosis of diaphragmatic inflammation. Furthermore, it would seem that whenever hiccough exists in peritonitis, it is always followed by vomiting. Peritonitis is often complicated with diaphragmatic pleurisy, and in such cases the diagnosis is very difficult; the absence of cough and expectoration, of lung consolidation, and auscultatory signs, helping to determine. It is difficult to distinguish an encysted supradiaphragmatic effusion from a subdiaphragmatic collection. The prognosis is, as a rule, favorable in primitive pleurisy; in the tubercular diathesis, and in puerperal fever, it is always grave.

The Surgery of the Lungs.—(Editorial, *Med. News*)—Incision of the lung—pneumotomy—is practised for abscess, gangrene and hydatid cysts. Of nineteen cases of non-tuberculous pleuro-pulmonic abscess, treated by incision, drainage and antiseptic injections, six recovered eight died, one was improved, and three were convalescent at the time of reporting. In thirteen cases of incision of tuberculous cavities, the mortality after the operation has been about 50%. In thirteen cases of gangrene, there was complete recovery in three, death in six, and improvement in four cases. In thirty-two cases of hydatid cysts of the lungs and pleura, there were twenty-seven recoveries and five deaths.

Resection of portions of the lung in five phthisical patients resulted fatally. In two cases portions of the lung have been resected for malignant growth; in one case, a girl of 18, with complete recovery; in the other, death within twenty-four hours after the operation. In a case of a wound of the lung, with uncontrollable hemorrhage Omboni opened the chest, incised the wounded portion of lung and looked for the ball, the patient dying of septicæmia on the eleventh day.

Intrapulmonary injections seem to be of value for disinfecting fetid cavities, tuberculous or bronchiectatic, since little can be expected of it as a curative measure in ordinary phthisis. Lepine has reported favorably on injections in pneumonia. The procedure does not seem to be dangerous, iodoform, creasote, carbolic acid, corrosive sublimate and iodine having been used without any serious effects. Except in superficial cavities with stinking contents, its employment is of doubtful value. In hydatids the results are encouraging, and in cases of abscess and gangrene, if favorably situated, free incisions with drainage and disinfection, when performed early, before the patient is exhausted, may yield good results.

A case of Chylothorax due to Rupture of the Thoracic Duct.—(*Jour. of Med. Sci.*)—The patient, 16 years old, was seen on Aug. 31st. He was engaged in a mine, and while pushing a train of trucks along the rails was struck on his left side by another train and thrown upon his back across the rails, and an empty truck passed across his chest from left to right. He did not seem to be severely hurt, and no fractures could be detected, nor was there much bruising. He complained of some tenderness over his back, but he retained perfect power in all his limbs. There was neither emphysema, cough, hæmoptysis, nor dyspnœa. Pain was felt over the chest. An examination of the left side of the thorax revealed a perfectly normal condition, but there was some dullness over the lower part of the right pleural cavity, and here the breath sounds were lost. The case was diagnosed as hæmothorax. The lad did well for three days, except that the dullness on the right side increased. On the fourth day he began to suffer from dyspnœa, and lay upon his right side. On the next day he suffered greatly with oppression of the chest and difficulty in breathing, with dullness of the whole right side. He became cyanosed and died on the same day with apnœa. At the autopsy the liver was found pressed down into the abdomen. The right pleural cavity contained a gallon and a half of a whitish, milky, odorless fluid, which proved to be pure chyle; there was no admixture of either pus or blood. No pleurisy existed, except at the lower part of the cavity. The right lung was collapsed but uninjured. All the other viscera sound. The body of the ninth dorsal vertebra was found to be broken right across, while just above the fracture the thoracic duct was cut across. The meninges and cord were perfectly sound.

Dr. Quincke (*Med. Chron.*) reports a somewhat similar case, without effusion of blood, but where, in the last day or two, air was present in the pleural cavity.

Dr. Kirchner reports: A girl, 9 years of age, had symptoms of effusion in the right chest, dyspnœa, cyanosis, and a normal temperature. The child had suffered with a hacking cough all the previous winter, and 14 days before she was seen she had run violently against a window parapet. This was followed by difficult breathing, but there were no signs of a fracture of the ribs or injury of the lungs. An exploratory puncture yielded a pure white, thin fluid. The dyspnœa continued to increase, so the thorax was punctured, and a quantity of fluid containing fat escaped, which the microscope showed to be chyle. The fluid re-accumulated, and a repetition of the puncture seemed called for, but after a warm and a free purgative the dyspnœa suddenly disappeared. The dullness diminished and the child continued to improve, until two and a half months later the child was well. He thought there was a rupture of the thoracic duct between the fourth and tenth dorsal vertebræ, the pleural parieties having been also ruptured. From the slight onset of the symptoms it is probable that the duct was only lacerated and not completely torn through; recovery taking place through the establishment of the collateral circulation in the neighboring vessels, whilst the duct itself, blocked with a clot, was allowed to heal. The writer also gives a record of cases of wounds of the thoracic duct. Several are very doubtful, but seventeen in all are counted; of these, three were chylous ascites due to rupture of the abdominal chyle vessels; one was due to the wounding of the vessel, where it empties into the vein at the root of the neck, during the removal of a tumor. Of the nine cases of chylothorax, six

are said to have occurred on the left side, but only one of these is certain; one is not specified; the other two occurred on the right side; three were due to suppurative ulceration; four to rupture from straining; two to crushes, and others to various punctured and gunshot wounds.

UNDERCURRENTS OF MODERN MEDICINE.*

By Richard M. Hodges, M.D.

The exercise of a profession like that of medicine—which, in its working capacity, enters every family, and is brought into relation with the weaknesses, as well as with the ambitions of mankind—demands not merely a learned knowledge of health and disease, but requires comprehensive familiarity with modern civilized life, executive skill, and business habits not inferior to those exacted by other technical occupations. Although the public is incompetent to determine the presence or the absence of scientific acquirements, it recognizes practical efficiency by many outward and visible signs. Education does not always carry with it the external indications which catch the fancy, and prove most acceptable to those who seek for connsel and assistance; but bearing and demeanor, while they hide as often as they reveal the actual traits of an individual, are almost invariably the secrets of his failure or of his success.

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If the rivalry of a crowded profession sometimes tempts men to practice a certain degree of humbuggery in dealing with patients, there is rarely any association between profitable trickery and wilful quackery. Practitioners who please their clients are rarely incompetent, nor do they deserve to be called charlatans. They are not the knaves whose fatal ignorance accentuates and fosters the philanthropic proposition that the State should protect the community from medical imposition.

The fact must be surely though sadly recognized, that the practice of medicine by people who have not the appropriate knowledge for what they undertake, cannot be prevented by legislation. If we could prohibit those who publicly proclaim their clap-trap, we should still leave unsuppressed the grandmothers, mothers-in-law, maiden aunts, and neighbors, whose readiness to assume responsibility in sickness is equally devoid of any educated qualification; and one shudders to think what might happen if, even as a single result, their energies were turned from this innocuous if not beneficent channel by the strong arm of the law.

Interference with a man's choice of medical treatment may be a violation of the "liberty of the subject;" but not on that account do I venture to express the belief that the public should be left to care for itself,—in this respect, as well as in most other matters. It is a dangerous experiment to meddle with the relations of the public and a profession. In any attempt to modify the attitude of those whose rightful privilege it is to treat human diseases with absolute freedom from restraint, it should be remembered how wisely it has been remarked, that "Science commits suicide when she adopts a creed." The saying will prove equally true of medicine, when, by legislation, different medical sects are recognized, even to gain a worthy end.

That medical testimony should possess value, witnesses must be held responsible for what they say or state. The trustworthiness, and the relevancy of evidence can be thus controlled only when it is uttered in the presence of an *amicus curiæ*, competent to recognize the ignoramus or the pretender, and to keep both court and jury from being led astray by side issues, or blinded by irrelevant talk, or deceived by the advancement of theories, which, though they may be true, are presented in a partial, an imperfect, or an exaggerated manner.

The conclusion, therefore, is a growing one, that the appointment of experts, in our Commonwealth at least, ought to be made a part of the judicial function, and that their compensation should be fixed by statute, or by the court, and be paid out of the public treasury.

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There is but one remedy for too short a course of study—which might be judiciously, though not easily extended—and for graduating at an age which is too old—and that is, to lengthen the curriculum backwards into the preparatory years by requiring better qualifications to begin with.

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It was the great aim of Professor Agassiz here, as it has been of Professor Huxley in England, to make young people good observers, and to convince them that attention, memory and observation are not only serviceable and remunerative, but always attainable attributes. It should be a chief endeavor of any instruction intended to precede that of a medical school, to cultivate the tactile, visual and auditory senses, and to beget an early conviction of the value of precision.

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The study of the phenomena of life—and therein lies the whole of science, so far as the business which engages our attention is concerned—has exercised a great influence in promoting truer estimates of disease and wiser methods of treatment; but a just and natural proportion should be maintained between that part of our pursuit which is purely scientific and that which is practical. If one is in danger of being prosecuted at the expense of the other, it ought not to be the latter.

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Ignorance of certain groups of diseases is acknowledged and confessed by every honest physician. The rapid accumulation of facts in all departments of medical research is beyond the comprehensiveness of a single mental grasp. There are anatomists and physiologists who have never set foot within a hospital. The International Medical Congress, with its twenty or more sections, is an illustration, as well as a recognition, of distinct demarcation in the lines of professional study.

Almost without exception, such sub-divisions are concessions to convenience, and owe their existence largely, and perchance unfortunately, to considerations connected with the treatment of disease. In nearly every instance, they represent departments of operative surgery, in which particular skill or special manipulation are required; and their technical element, often reaching the highest refinement, has exercised a great influence in advancing the art of medicine. But they have also abetted a mistaken tendency of public belief, that elaborate division of labor must necessarily be as useful and successful in a learned profession, as it is in the mechanic arts.

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*Abstracts from the Annual Discourse delivered before the Massachusetts Medical Society, June 9, 1886.—*Boston Medical and Surgical Journal.*

There can be no denial of the fact, that whoever, in addition to his general requirements, knows more about some particular thing than any one else—or, at any rate, can do some special work pre-eminently well, has a decided advantage over his fellows; but the suggestion that all diseases of the body, and not merely those of its inlets and outlets—even though they are beyond the reach of mirrors, aspirators, or sounds—must be put in the same category with ailments of throats and ears, and reveal their secrets hereafter only to the sharp observation and skilled insight of specialists, is one which will hardly be conceded at present. With all the facts before them, enthusiastic students and workers still deliberately select the broad roads of general medicine and surgery, in preference to the narrow and possibly devious paths of special practice, though the latter may lead to speedier pecuniary success.

The human body is made up of parts and functions so thoroughly inter-dependent, that it cannot be parcelled out into defined and isolated regions. Let me illustrate this self-evident statement by quoting a post-mortem diagnosis by Professor Fitz, and taken absolutely at random from the Autopsy Book of the Massachusetts General Hospital. It reads as follows; "Chronic Pneumonia; Suppurative Pyelitis; Chronic Perimetritis; Hæmatoma of Ovary; Ischio-rectal Abscess, with Perineal Fistula; Chronic Typhlitis, with pseudo Polypi; Gangrenons Ulceration of Vermiform Appendix; Granular Degeneration of Liver and Kidney." The patient, with this appalling pathological conglomerate as his record, was one who, if alive, would have sought the advice of a specialist in diseases of the chest, and none other.

Despite all arguments drawn from expediency—despite the difficulties encountered in the mastery of details, by any physician who has not had a special training—one such case as that just alluded to emphasizes the assertion that he who has the most comprehensive knowledge of the human organism and its disorders is, with certain well-recognized exceptions, best able to determine what is the matter with any given part of it, and so to help its unlucky owner to recovery, either through his own practical skill, or his ability wisely to select the colleague whose attainments may permit him to deal better with the case than he can. This object will not be less readily achieved if the practitioner acknowledges the limitations of human understanding, and the immaturity of medicinal therapeutics; or if he believes in the maxim that "the best physician is he who can distinguish what he can do from what he cannot."

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The knowledge accumulated by medical science has far outrun the capabilities of remedial art, in its adaptation to practical use. When we venture into the domain of medical and surgical treatment, the foreboding signs of ignorance and inexactitude are betrayed. The discouraging absence of sure measures of relief, when the hope of alleviation is strongest, only reveals the disproportion between the stimulus to action which is instinctively aroused by the presence of sickness and suffering, and the means to act efficiently. The impulse and provocation to "do something" are too apt to instigate a pretence of knowledge, or to prompt an audacious, irrational or trifling interference which subverts comfort but does not cure disease. This anxiety incites us to unavailing prescriptions and modes of procedure, which, worthless as they are, pass into such general use that even the conservative sometimes accept them as articles of faith, scarcely admitting of question.

Therapeutics, when not guided by an intelligent and definite purpose, are superfluous and meddlesome. Surgical operations, which, from the outset, it is known cannot be completed, and into which every surgeon remembers with regret that he has been drawn by some vague expectation of benefit—the infiltrating epitheliomata, the adherent and fatally located tumors, the malignant growths sure to return, the limbs crushed in railroad accidents, from which he has not withheld his hand—have certainly contributed nothing to the self-satisfaction of the operator, or helped to advance even the purely mechanical part of surgery.

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The whole order and sequence of facts in any discovery is rarely arrived at. Explanations are only partial, and danger lies in their acceptance as final. In the records of human investigation, however, it would not be easy to indicate measures of more promise—even in their present state of incompleteness—than the suggestions for the prevention and cure of disease, which the Germ-Theory has prompted in regard to tuberculosis, cholera, various zymoses, and malarias, as well as in connection with widespread and destructive affections of agricultural and industrial interests. It would be difficult, also, to name an expedient that has proved more humanely useful than antiseptic surgery, which saves life and limb through the, now, almost universal adoption of rigid hygienic precautions, strict cleanliness, and thorough drainage.

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It is only of late years that the diet of those not actually sick has received the attention it deserved, either in its bearings upon the healthy growth of the human body, or its defensive power in relation to disease. The data supplied by physiology, the dietetic customs of social classes, the likes or dislikes of a physician's own palate, were, until recently, the guiding principles by which the alimentary needs of physical economy have been regulated. The conflicting advice of medical men still betrays the absence of any unanimity of opinion on this question, considered from a therapeutic point of view, and there is no subject in which personal experience is more fallacious as a guide.

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The report of Sir James Crichton Browne, which attracted such universal attention two years ago, states that out of 6,380 school children examined, 3,034, or more than 46 per cent. suffered from headache. He attributes this state of things largely to innutritious and insufficient food, and takes pains to say that partial and occasional starvation is not confined to children of the lowest class.

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The most superficial observer will perceive that the principal field for therapeutic advance in the near future, is most likely to be found in the regulation of food, habits, and the incidents of life. Daily and continuous in their operation, these must be of vastly more importance than drugs and "treatment," which are but transient in their influence. We may speculate about ptomaines, leucomaines, and auto-infection, or, with unshaken faith, adhere to the doctrines of bacteriology; but it is still true, that the conditions of disease are increasingly traceable to avoidable violations of hygienic law. The care of health, even more than the care of disease, is recognized as the office of physicians.

INDICATIONS AND CONTRA-INDICATIONS FOR THE IMMEDIATE SUTURE IN OBSTETRIC LACERATIONS OF THE PERINEUM.*

THE following conclusions are drawn:

1. A laceration of the first degree, as long as only the skin is involved, may be left to heal by postural apposition, provided there is no danger of septic infection. If there should be any danger of the latter, although the closing of the wound will not altogether prevent infection by absorption, it will at least lessen this danger, especially with antiseptic treatment.

2. A laceration of the second degree, where the fascia and muscles are torn, ought, if possible, always to be repaired immediately after the occurrence of the laceration, provided there are no complications on the part of the patient, as extreme œdema of the parts, great bruising, etc. In such an event we cannot expect union by suture immediately. It is necessary either to wait a certain length of time, from a few hours to a few days, in order to give the parts a chance to recover their proper vitality and tonicity, or, after having paired the edges, we may introduce the sutures and gradually tighten them as the swelling subsides.

Just here I would direct attention to the tension of the suture. If it be drawn too tight, the vessels may be strangulated and the union thus be prevented; if, on the other hand, too loose, as the swelling subsides the surfaces will also recede from each other and the stitches serve to no purpose. Consequently great care must be exercised in the proper tension of the sutures, and if the parts do not look favorable for primary union, it is better to wait a few hours, then place the patient under an anæsthetic, pare off the edges, and proceed with great care.

3. Lacerations of the third degree cause such a deplorable state of the patient afterwards that every attempt should be made to repair the accident immediately. Even if we should not be wholly successful, we may be so at least partly, by converting a laceration of the third degree into one of the second degree, which is vastly more comfortable than the loss of the sphincter power of the anus. If very urgent reasons should prevent us from attending to this accident immediately after labor, we should at least select the earliest possible time to repair the accident, proceeding with all due care and skill, as in the secondary operation.

A last word as to the form and method of suture. In the early part of this paper it has been said that the length of the laceration along the external perineum will also, as a general thing, be indicative of the extent upward into the vagina. It will be seen that while lacerations of the first degree would require but very superficial sutures, those of the second and third degree must be united by deeper and stronger sutures. If the fascia or the tendinous centre of the perineum be torn, their edges must also be brought together, which can only be done by deep sutures, the depth being proportionate to the extent of the laceration upwards. There can be nothing more reprehensible than the simple, cutaneous union of a large, deep laceration. The lower line is truly approximated, but the upper remains open, allowing the fluids to become pocketed, and thus preventing union and causing danger of septicæmia. Better than this to leave the rent open to allow at least free drainage. If the rectum and vagina be torn a high distance upwards, it may become neceesary to unite each separately.

For ordinary cases I prefer silk, as it gives less discomfort to the patient, is ready at hand, and more easily introduced. It possesses, however, the disadvantage of becoming septic by the absorption of septic material. This may be overcome by laying the strand first in a solution of carbolic acid or corrosive sublimate, and then keeping up irrigation by an antiseptic solution afterwards. Another disadvantage is that it cannot be tightened if found too loose after awhile. It is therefore not adapted for those cases where there is excessive swelling. Silver wire possesses the great advantage of causing less danger from sepsis, and it may also be tightened afterwards by simply giving it an additional twist, if necessary. It is, however, less comfortable for the patient, for the slightest move on her part will cause the ends of the wire to strike some part of the body in the vicinity of the united edges. As silver wire is, however, also stronger, it is better adapted for those cases where the suture ought to be introduced at a great depth, as, for example, in complete laceration. If preferred, the wire may also be used for the deep, while the silk thread is employed for the superficial sutures.

* An abstract of a paper in the "Cincinnati Lancet and Clinic." By W. H. WENNING, M.D., Gynecologist to St. Mary's Hospital, Cincinnati, Ohio.

The Ice-Bag as a Therapeutic Measure.—The value of ice, says Dr. Thornton Parker, in the *Va. Med. Monthly*, is denied by very few; but how seldom in this country do we see the useful ice-cap used to reduce bodily heat. A strong prejudice does exist against its employment, and it is not to be wondered at.

Referring to our catalogue of instrument makers and druggist supply houses, we find the caps pictured therein as made of that abominable instrument of torture, vulcanized rubber. They are expensive to begin with; but worse than that, they are miserable failures for the purpose they pretend to be useful for. They are very heavy and clumsy, and distress the patient, and are always either too cold or too hot.

Their great weight is often positively injurious. The bladder from the butcher is a dirty make-shift, and should not be tolerated. The ice-cap so commonly in use in Germany is a very different arrangement. It is made in excellent shape, very light for the head, and the material is as thin as it is possible to have with safety.

In the German hospitals, every bed has its frame-work for the proper attachment of the ice-cap. This allows the ice-bag to hang suspended from a tight cord directly over and just touching the patient's head, so that he can turn about in bed without upsetting the cap and deluging himself in ice-water. It is so arranged that the patient suffers no inconvenience, and never wearies of the delightful application, so necessary for his early and satisfactory recovery.

In almost every case where the temperature rises above normal, in surgical or medical wards, the ice-cap is used, and with great benefit. The contents of the cap vary of course in the proportions of ice and water, according to the nature and severity of the illness, but the effect is almost always good, and the bodily temperature is surely and decidedly lowered. The absence of the ice-cap in American sick-rooms has always been a mystery to us, and its infrequent use by American medical practitioners of our acquaintance has been a source of increasing won-

der. It is worth while to bring this subject into notice, and to assure those who have been disappointed with the miserable articles so generally on sale in our drug-shops, that a very fair article can be purchased of the Davidson Rubber Company, and also of Messrs. Tiemann & Co., of New York, and probably elsewhere. In almost every disease where the temperature rises above the normal, the ice-cap, if of proper material, and properly applied, is indicated. Where the necessary attachments to the bedside to properly support the ice-caps are lacking, a picture-nail in the wall, or a hook screwed into the ceiling, is all that is required to aid us in properly adjusting the ice-cap.

Oxalates in the Urine.—Many instructive instances are on record of the occurrence of oxalates in the urine after disturbances of digestion. With some persons, taking champagne at dinner is followed by such deposit. Dr. Lauder Brunton has observed that cabbage for dinner with hospital patients has had a like effect. Some persons must have found rhubarb to disagree in a similar way, or the crude theory that oxalates taken in the food would reappear in the urine would never have been started. Oxalate of lime is the most soluble of all the urinary deposits; it is neither made soluble by alkalies, as is uric acid, nor by acetic acid, as are the phoshates.

Treatment of Ozæna.—Dr. Malacrida, after cleansing the nostrils with a solution of chloride of sodium and drying the mucous membrane with pledgets of absorbent cotton introduces a bit of cotton moistened with a few drops of the essential oil of turpentine. In a number of cases in which this method was employed, the disagreeable odor was almost immediately destroyed, and a permanent cure was obtained in less than a month.

On Milk Digestion.—Reichmann (*Archiv. fur Klin. Med.*, Vol. IX., No. 6) has made some valuable researches on the digestion of milk, which are published in condensed form in the *Therapeutic Gazette*. The milk drank by a healthy young man, 20 years of age, was subjected to an examination in the various stages of its digestion, and tested for acids, peptones and parapeptones. Reichmann came to the following conclusions:

1. Three hundred c. c. of raw milk leave the stomach four hours after its ingestion.
2. The actual process of its digestion lasts but three hours.
3. The coagulation of milk takes place five minutes after its ingestion.
4. This coagulation is not caused by an increase in the quantity of acidity, but by the influence of another agent, probably Hammersten's ferment.
5. The maximum of acidity, viz., 0.34 per cent., occurred in all experiments but twice, once after the lapse of forty-five minutes, and the second time after one hour and fifteen minutes.
6. The contents of the stomach attain the maximum of its middle acidity, viz., 0.32 per cent., in one hour and fifteen minutes.
7. The acidity of the contents of the stomach depends at first solely upon lactic acid, later upon lactic acid and muriatic acid together.
8. Muriatic acid presents itself in larger quantities after the lapse of forty-five minutes.
9. The acidity of the gastric contents increases gradually during the first hour and fifteen minutes, and then gradually decreases until the milk has wholly left the stomach.
10. The maximum quantity of peptone occurs at the period between thirty minutes and two hours after the ingestion of milk. Before and after this period, peptone occurs only in traces. Parapeptone shows in the beginning of the process of digestion the opposite behavior.

Experiments made on the same individual with boiled milk led Reichmann to the following conclusions:

1. After the ingestion of 300 c. c. of boiled milk the sour contents leave the stomach in three hours.
2. The actual duration of this digestion is two hours and thirty minutes.
3. As to the nature of the acids in the gastric contents, the degree of acidity and its variations, no appreciable differences could be ascertained between the behavior of raw and of boiled milk.
4. In the digestion of boiled milk a more energetic peptonization occurs sooner than in the digestion of raw milk.
5. The caseine clots are much smaller in boiled than in raw milk.
6. The duration of digestion is shorter and the disappearance of the sour contents from the stomach occurs sooner in boiled than in raw milk.
7. After the ingestion of 100 or of 25 c. c. of boiled milk the sour contents leave the stomach in two hours.
8. The duration of its actual digestion is only forty-five minutes.
9. After the ingestion of small quantities of milk, muriatic acid can be found much sooner in the stomach with the aid of ordinary reactions.

Finally, Reichmann experimented also with alkalized milk, in order to study the action of alkalies on the digestion of milk. All results obtained on the young man experimented upon were afterwards confirmed by researches on nine other healthy persons.

Faith-Healing.—Rev. Dr. Buckley, editor of the Methodist *Christian Advocate*, has a long and exhaustive article on "Faith-healing" in the June *Century*, which is based on many years of inquiry on his own part and on much trustworthy testimony. His conclusions are opposed to the claims of Christian "faith-healers," and the article, altogether, offers a mass of curious and important information. He says:

"It may be asked, what harm can result from allowing persons to believe in 'faith-healing'? Very great indeed. Its tendency is to produce an effeminate type of character which shrinks from any pain and to concentrate attention upon self and its sensations. It sets up false grounds for determining whether a person is or is not in the favor of God. It opens the door to every superstition, such as attaching importance to dreams, signs, opening the Bible at random, expecting the Lord to make it open so that they can gather His will from the first passage they see, 'impressions,' 'assurances,' etc. Practically it gives great support to other delusions which claim a supernatural element. It greatly injures Christianity by subjecting it to a test which it cannot endure. It directs attention from the moral and spiritual transformation which Christianity professes to work, a transformation which wherever made manifests its divinity, so that none who behold it need any other proof that it is of God. It destroys the ascendency of reason in the soul, and thus, like similar delusions, it is self-perpetuating; and its natural, and, in some minds, its irresistible tendency, is to mental derangement."

MISCELLANY.

—To prevent lockjaw, apply turpentine on lint to all wounds.

—Extract of sweet pea is said to be the homœopathic remedy for diabetes.

—Japan has been mapped out into six divisions, and a medical college is to be established in each division.

—The St. Louis University has most worthily conferred the degree of Ph.D. upon Dr. T. Griswold Comstock, of that city.

—Mortality among physicians under the age of thirty is higher than that of any other profession during the same period of life.

—A Chinese edition of "Gray's Anatomy," prepared by Dr. John Dudgeon, who has resided in China for over twenty years, has lately been published.

—Another physician—Dr. J. W. Underhill, of Cincinnati—has fallen a victim to the cocaine habit, making the third authentic case on record in the United States.

—Not a soldier in the Prussian army has died of small-pox since 1875, and this immunity is undoubtedly due to the strictness with which vaccination is enforced.

—"Hemrod's Asthma Remedy" is said to be composed of equal parts of powdered lobelia, stramonium, black tea, and nitrate of potassium well mixed and sifted.

—It has recently been recorded by Sherwell that acne rosacea ceased after the repeated passage of urethral sounds, when it had previously resisted all treatment.

—Prof. Bartholow says that when the cause of jaundice has been removed, salicylic acid will remove the bile pigment from the blood more promptly than any other drug.

—The much-advertised "cuticura ointment" has been found to consist of petroleum jelly, colored green, perfumed with oil of bergamot, and containing two per cent. of carbolic acid.

—M. Pasteur states that he has many times noticed a marked improvement in the health, weight and condition of persons who have become inoculated after being bitten by rabid animals.

—In the surgical clinic at Jefferson College, Phila., lately, Prof. Brinton remarked that when a man shaved or a woman did up her back hair, it was a certain sign they would get well.

—*The American Journal of Pharmacy* says that in pruritis and eczema moistening the parts with a solution of menthol, from two to ten grains to the ounce of water, produces immediate relief.

—Populin, an alkaloid obtained from the bark of the white poplar, or "quaking aspen," is said to act like a charm in painful micturition and scalding. The dose ranges from two to four grains.

—There is evidently a decline in the consumption of alcoholic liquors in this country at the present time. It is shown by the decrease of the internal revenue receipts last year, amounting to $9,000,000.

—The experience of a number of practitioners in Montreal, during the recent vaccinations, seems to show that, whatever the efficacy of vaccinia against small-pox, small-pox does not protect against vaccinia.

—An excellent local application (*Med. and Surg. Rep.*) for "swelled testicle" is a paste formed in equal parts of subnitrate of bismuth and water. It removes the pain at once and gradually reduces the swelling.

—"Happy will be the surgeon," said Verneuil, "who has no operating case and knows how to cure his patient without it. I hope some day, thanks to progress, that surgery may cease to shed blood and to cause tears to flow."

—Dr. Strong, chief of staff of the Ward's Island Hospital, reports 660 patients treated during the month of June, with a mortality of 3.48 %. Two thousand one hundred and eighteen patients have been treated since Jan. 1st.

—According to the *Med. and Surg. Reporter*, a department of penmanship is the crying need of the hour in our medical colleges. There is very little practical difference between bad prescription-writing and downright malpractice.

—Smokers may enjoy their pipes or cigars without any fear of being poisoned by nicotine, if they will wet the tobacco with the juice of the water-cress, which will completely destroy its deleterious principles, without affecting its aroma.

—An ointment of calabar bean (twenty grains to the ounce of lard or vaseline), applied to the breast, will restore the secretion of milk when suddenly or temporarily arrested. It must be carefully washed off before the child is suckled.

—Dr. W. G. Watford (*Brit. Med. Jour.*) insists, after an extended trial of the drug, on the efficacy of arsenic as a prophylactic of scarlatina. The failure of belladonna, in the same direction, will not prevent the putting of this new claim to the test.

—The title of Doctor was invented in the twelfth century, at the first establishment of the universities. William Gordenia was the first person upon whom the title of Doctor of Medicine was bestowed. He received it from the college at Asti, in 1329.

—Mrs. Leland Stanford, wife of the millionaire Senator from California, has purchased a piece of land on Washington Ave., Albany, adjoining the site of the old Lathrop mansion, and it is stated that on the whole property she will erect a handsome and well-appointed hospital for old men and women, as a memorial of her parents.

—Purification of river water by means of electricity has been undertaken at Roubaix by M. Stoffel. The gist of the process is that the ozone generated by the electrolytic decomposition of the water kills the minute organisms, and oxidizes all organic substances, at the same time precipitating the carbonates in course of dissolution, thus effectively purifying the water.

—One of the recent cremations at the Fresh Pond Cemetery, L. I., was that of Charles Cohn, a writer connected with the German press of this city. He stated in his will that he wanted his body cremated without ceremonies and in the simplest and least expensive way. The ashes I wish to be sprinkled either around a tree or on a garden spot, where the rains may mix my remains with the soil or the winds disperse them. The executor, Dr. Rudolph Frankeld, carried out the wishes of the deceased, so far as the cremation was concerned, but declined to scatter the ashes. He will send them to the sister of the dead man, who lives in Breslau, Germany.

XUM

—Dr. Chibret, who, a few months ago, performed the operation of transplanting a rabbit eye into the orbital socket of a girl æt. 15—a procedure which at the time caused a good deal of comment in the secular papers—now admits that he made a mistake in doing so, the prognosis of the case having been decidedly unfavorable.

—Mr. Keith, of Edinburgh, was recently brought from over the sea to give an opinion on the case of a lady, the cause of whose abnormal enlargement was obscure. He spent about half an hour with the case, and confirmed the diagnosis of the attending physician. For this service, says the *Northwestern Lancet*, he received ten thousand dollars.

—Prof. Theodor Kocher, of Berne (*Correspondenz Blatt*, March 1, 1886), reports a case in which he successfully resected five feet of intestine. The operation was performed under careful antiseptic precautions. The patient was discharged, perfectly well, in eighteen days. He was seen several months after and reported that he never enjoyed better health.

—For sprains, the limb should be put into very hot water immediately, boiling water being added as it can be borne, and kept immersed for twenty minutes, or until the pain ceases. Then put on a pretty tight bandage and order rest. If the trouble is more chronic, apply a silicate of sodium dressing, and let the patient walk with a cane if the ankle be the joint affected.

—The first class ever graduated from a training-school for nursing the insane was graduated from the McLean Asylum the first of March last. It consisted of six women, who had more than completed their full period of training. Since then, April 20, a training-school connected with the Buffalo State Asylum for the Insane, graduated its first class, consisting of seven women.

—H^2O^2 is of undoubted value in the treatment of suppuration of the middle ear. A spray of four-per-cent. solution has an almost magical effect in cleansing the ears. It is not difficult to understand this when we remember that pure peroxide of iron, H^2O^2, when decomposed yields 435 volumes of oxygen: the dilute substance yields from fifteen to twenty times its volume.

—It is said that the success of the Vienna polyclinic has aroused considerable opposition on the part of many physicians who find themselves threatened in their private practice by its growing popularity. Over 35,000 patients are annually treated there free of charge, and many eminent university professors give their services to the institution. This practice is rapidly growing in this country, and the profession should keep an eye to it.

—Nicolai reports goods results in the treatment of night sweats by phthisical and other patients by lotions of chloral dissolved in equal parts of brandy and water (one drachm to a tumblerful). The patient should be sponged with this lotion every evening before going to sleep. If this does not control the sweating, the night-shirt should be soaked with the lotion and then dried. This treatment has been particularly serviceable in the night-sweats of non-phthisical children. Three or four rubbings will sometimes arrest the sweatings for several weeks.

—A very curious idiosyncrasy which has come under the notice of a writer in the *Therapeutic Gazette*, is that of a lady who is thrown into fainting fits by eating the smallest piece of butter. She was once tried by placing a small piece of butter in a dish of mashed potatoes and giving her a tablespoonful, after telling her that there was no butter in it. In a very few minutes she fell off her chair in a condition of swooning.

—Something of a curiosity was shown the Jefferson College students, recently, by Prof. Pancoast. The patient was a child five years old, sent from lower Pennsylvania, exhibiting total fœtal amputation of arms at elbows and legs at knees. He was remarkably bright, could hop around on the stumps of legs at a surprising rate, could scribble with a pencil and cut paper with scissors.

—Dr. A. M. Duncan, of Hamler, Ohio, writes to the *Medical Record* that Dr. Alvord, a retired practitioner of that place, who is a sufferer from glycosuria, finds more relief from a diet of pure buckwheat-flour cakes than from anything else. On resuming the use of wheat bread and other starchy foods, the symptoms become aggravated, to be again relieved upon a return to buckwheat.

—M. Lasenne, at a meeting of the Société Médicale D' Amiens, indicated a certain sign of death, simple and trustworthy. After pricking the skin with a needle, the puncture remains open, just as when a piece of leather is pricked. On the living body, even if the blood does not come to the surface, as would happen if the person were hysterical, the pin-prick closes at once, and does not leave the slightest trace.

—Dr. Henry B. Baker, the indefatigable Secretary of the Michigan Board of Health, estimates the total number of deaths from typhoid fever in that State at one thousand per year, and considers the proportion which deaths from typhoid fever bear to the total mortality throughout our Union is elsewhere at least equally great. The reply to the question as to how this enormous death-rate can be prevented he considers may be given in the four words—embodying a great aphorism of practical hygiene—"stop drinking contaminated water."

—The "hemorrhage trick," so-called, has been practised upon a number of good people in the suburbs of Boston within a few weeks past. A poor man is found lying on the ground with much bright blood upon his lips and his attire. A Good Samaritan comes that way, to whom the afflicted man explains that he has accomplished most of the distance from Jerusalem to Jericho on foot, in search of work, and could easily have finished the journey had he not had this bleeding from the lungs. The Good Samaritan, moved with pity for the man's sad condition, does not exactly set him upon his own beast and take him to an inn, but after the changed condition of the nineteenth century, renders an equivalent service. He gives the sufferer a bank note and advises him to take the first train for a hospital. Such a one recently met a fellow Samaritan who had a similar experience the previous day upon the same road, and the two compared notes. Investigation has shown that there is in Jerusalem a store-house from which "hemorrhage material" is supplied to whoever of the brotherhood of the wayfarers requires it. Meantime, the Priest and the Levite are disposed to rejoice over the Samaritan and are confirmed in their policy of passing by on the other side.